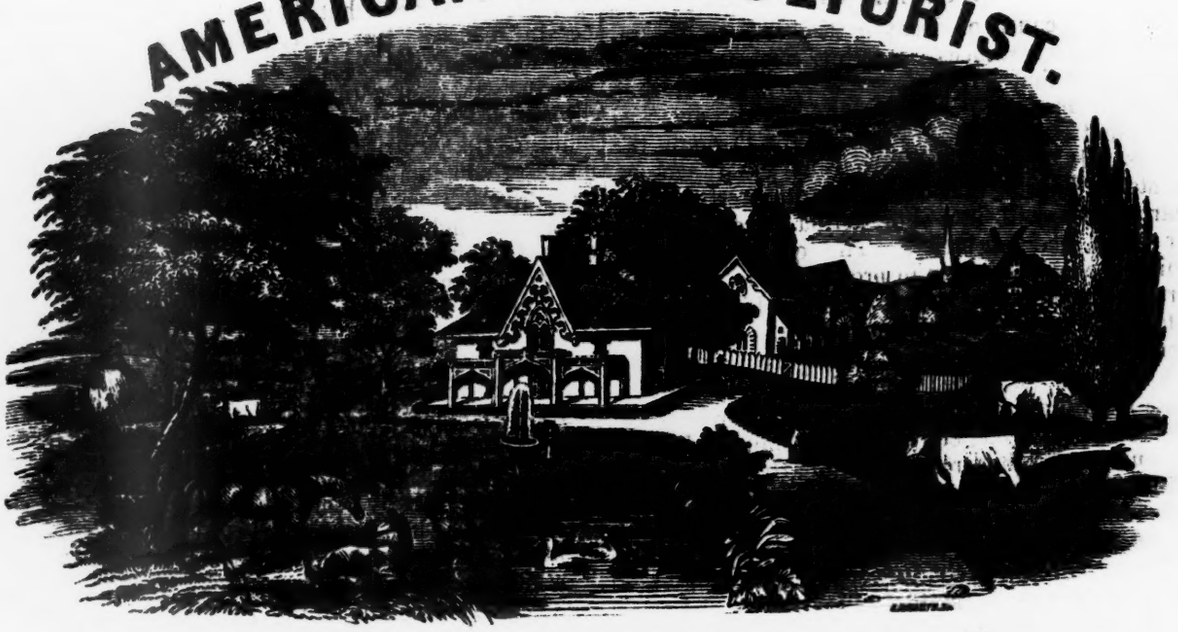
AMERICAN AGRICULTURIST.



Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.

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A. B. ALLEN, EDITOR. C. M. SAXTON, Publisher, 121 Fulton Street.

THE

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TO OUR READERS.

ANOTHER year has passed, and with this number closes the seventh volume of the Agriculturist. We sincerely hope and trust our labors in conducting it have not been altogether unavailing, and that those we have so assiduously endeavored to instruct, have profited thereby.

It gives us pleasure to add, that our subscription list has been steadily augmenting ever since the paper was started; and now that the Farmers' Cabinet has been joined with it, we are confident, few, if any agricultural periodicals, can boast of a greater number or of a more intelligent class of readers.

To our well-known facilities for conducting a first-rate journal, we shall add, the coming year, all such improvements as are found upon proper experiment to be of any practical value; and thus keep the Agriculturist up to the high stand which it has maintained since its origin. But to do this, effectually, and give interest to its columns, our friends must not forget that we stand in need of their efficient aid. Continue then to write and act for us, as you have so kindly done heretofore. Give us from month to month, all the information you may possess, and obtain for us as many subscribers as you possibly can. Every reader should act as an agent for our periodical, and not only work himself, but induce all within his reach to do the same. Let him reflect that he will thus more essentially serve the interests of the farmer and planter, and be more instrumental in developing the resources of his country than he could otherwise do. Subscribers are reminded that the terms of our paper require payment to be made *invariably in advance*. They would never make objection to this, if they had any idea of the loss and trouble of conducting a periodical any other way.

SEASON FOR FELLING TIMBER.

The true cause of decay in timber may be traced, in many instances, to felling trees at a wrong season, and that *wrong season is spring;* for then the sap is in a peculiar state, and highly disposed to ferment when it can no longer flow through the tissues. It may be said to act as yeast acts on moistened flour. We do not mean to assert that the heart of oak will, in a short period, become as tender as a loaf of bread. The quantity of sap which it contains is less in proportion to the solid parts than in softer woods. Many kinds of the latter, cut late in spring, however, have frequently been observed in a state so thoroughly decomposed as to be easily crumbled by the fingers in one or two years from the time the pieces were cut; whilst the same kinds of wood cut in the beginning of winter, but in all other respects similarly treated, remained perfectly sound. Any person who can cut off a limb of a tree in the beginning of December, and another limb from the same tree in spring, immediately before the buds expand, may convince himself that the beginning of winter is the best time to cut timber, and that the use of spring-felled timber ought to be entirely prohibited in all cases where the safety of individuals is liable to be affected by the want of strength in structures formed from this perishable material.

In order that wood may possess its greatest degree of natural compactness and elasticity, combined with hardness and durability, it must be felled in the early part of winter; and although means may be employed for driving out the fermenting, or putrescent sap, left behind in the late spring cutting, and for substituting antiseptic substances, yet there is no proof that the desirable properties, above mentioned, will be so ensured. On the contrary, it has been proved that strength and elasticity, or toughness, have been diminished in many cases, when wood cut in sap has been subjected to preservative processes.

In stating this, we do not wish to imply that the application of preservatives is unimportant. Quite the contrary. But the proper season for cutting timber should take precedence of all other considerations in regard to its preservation. If this is admitted and acted upon, means may then be employed for preventing that decay to which the soundest wood is liable, sooner or later.

ELECTRO CULTURE.

There have been numerous experiments of late years in the application of electricity to the growing of plants. This practice has received the name of *electro culture*. It consists in elevating electrical conductors, generally of iron wire, upon poles placed in the centre of each end of a bed, and conducting the electricity through it with wires so arranged as to come into contact with the roots. Or, it is more usual to place continuous parallel wires, connected with a galvanic battery at one end, and thus constitute a circuit through which the electrical current passes.

From the success of a few isolated experiments made years ago, which developed vegetable life with astonishing rapidity, magnificent calculations were made of the future economical application of electricity in practical agriculture. Many enthusiasts have recently tried various experiments in it, and have achieved what they deemed the most successful results. But it has been since ascertained, that in the ardor of zeal in arriving at satisfactory conclusions, their gardeners and other laborers were directed to supply an ample bed of rich vegetable mold for the electrical wires to revel in, and liquid manures and composts of various kinds were added from time to time, as being best calculated to produce an abundant and rapid flow of the galvanic current. The provision for this favorable development of this new agent of vegetation has even been so abundant in numerous instances as to have absolutely burnt up and destroyed the crops from its excess. It was not surprising, therefore, that extraordinary results followed the application of electricity, when accompanied by such powerful allies.

In defiance, however, of all these favorable conclusions, many less confident experimentalists have followed the rules systematically laid down by the masters; but when unaccompanied by the chemical adjuncts of animal, liquid, and other manures, they have proved wholly inoperative, and the crops have scarcely come up to the ordinary standard of contiguous and otherwise similar crops. It has even been found, on close scrutiny, that the rootlets of the plants, instead of running towards, and embracing this foster mother, as plants usually do, those substances from which they derive support, have decidedly cut her acquaintance, and turned back upon themselves, and hug and cling to each other in the narrow space, midway between the wires, rather than approach this new and questionable relation.

We are led to infer, therefore, that whatever remains yet to be brought to the aid of agriculture from electro culture, requires some mode for its application not yet adopted by the "knowing ones."

ADULTERATION OF FOOD.—No. 6.

Sugar.—This article, perhaps, has been subject to adulteration more than any other. Fortunately, however, the substances generally employed, have been comparatively harmless, merely weakening the article rather than imparting any poisonous quality.

Of inorganic substances, sand, chalk, plaster of Paris, and pipe clay have been used; of organic matter, flour, potato starch, and potato sugar, the latter of which is made by boiling potato starch for many hours with dilute sulphuric acid, neutralizing the excess of acid by chalk, and evaporating the clear liquid to a certain specific gravity, at which point it solidifies into a mass of crystals. These are drained, and are then employed for adulterating sugar, or for imparting sweetness and strength to wine or beer, and also for falsifying honey. The addition of this substance to ordinary cane sugar, has the effect of rendering the sweetening power of the latter much less considerable; for, cane sugar possesses a sweetening power two and a half times as great as that of potato sugar. Hence, a very much larger quantity of sugar thus adulterated must be employed to produce a given effect; and hence sugar, in this condition, is much more expensive in use than pure cane sugar.

For some years past, moist sugars have been largely adulterated with the sweet waste liquor (solution of glycerine), evaporated to a proper consistency, which is formed in the process of saponifying oils and fats. This liquid may now be procured, by hogsheads at a time, from the stearine

manufacturers, who obtain it by the saponification of lard and tallow. This fraud, however, may be detected by the inferior sweetness, and by the moist and dirty appearance of the sugar.

Sand, chalk, plaster of Paris, and pipe clay can be detected by dissolving the suspected sugar in a considerable quantity of water, and allowing it to clear itself by precipitation. The residuum remaining at the bottom of the liquid, will indicate, in a degree, the amount of adulteration.

Honey.—This substance is very often adulterated with potato starch, wheaten flour, and in some instances, with bean meal. These are added to give brown honeys a certain degree of whiteness, and also to increase the weight. Bean meal, however, is seldom employed on account of its taste.

Starch syrup and starch sugar are likewise used in reducing the standard of honey, as well as treacle, and sugar cane of various degrees of purity. Also, chalk, plaster of Paris, and pipe clay, all of which may be detected by mixing the suspected article with a large quantity of water, and allowing it to clear itself by precipitation, in a similar manner as recommended for sugar. Cane syrup, and molasses may be detected in honey both by their color and smell.

BOOK FARMING.

We had a fine example of hostility to book farming a few days since. One among the wealthy and respectable portion of our citizens, on being invited to subscribe for an agricultural paper, broke out into a most furious declamation against all attempts to improve the agriculture of the country, through the means of the diabolical art of printing. "He would have any man hung, drawn, and quartered, who would presume to attempt enlightening the public on agriculture through the means of the press, saving and excepting the present company. The farming of the present day, the crops, the soil, the orchards, animals, and indeed, whatever was connected with cultivation, was far behind what it was 30 years ago. Writing on agriculture, tended only to mislead; nobody but enthusiasts (knaves and idiots he meant), would write, and none but a similar class would read anything on the subject. Farming was to be learnt by example only; the old fashion was the best fashion, and nearest in accordance with common sense and sound judgment."

About half this tirade against this innovation upon the olden time, he believed; the other half he feigned; but he gave the lie to the whole of it in half an hour afterwards by purchasing a hundred dollars' worth of improved agricultural implements, which, but for the spirit awakened, and the knowledge developed by the agricultural information spread before the people of the present day, by our valuable periodicals devoted to this subject, would have remained where he thought the fruits and other matters connected with ancient agriculture, were, viz. in the models of a past generation.

The man who believes the agricultural press has done nothing for the cause in the present generation, is to be pitied. The man who feigns to believe it, deserves worse. Both are burying or clogging the benefits of that talent, which they will be called upon to account for hereafter, with usury.

PHOSPHATE OF LIME.

In a recent publication of the Royal Agricultural Society of England, Professor Johnston says:—"In the Magnesian limestones of Durham, I have hitherto found only .015 to .07 per cent of tribasic phosphate of lime; I have from our blue mountain limestone from Lanarkshire, obtained 1.39 per cent and in the burned lime as it comes from the kiln, 2.33 per cent. A ton of this burned lime, therefore, which is full of fossils, contains as much phosphate of lime as a hundred weight of bones."

What a proof is contained in the above of the utility of scientific knowledge when applied to practical agriculture. A large number of our industrious pains-taking farmers never read our agricultural journals, and yet think science when applied to their pursuits, is worse than useless. These worthy but benighted men, use lime as a manure, and one mass of rock that will burn into lime is of the same value in their eyes as another. Yet, the effects of an equal quantity of the lime furnished from three different quarries of stone, or marl beds, applied on adjoining and similar fields and crops, may be, that one is found to burn up the vegetation; a second produces only moderate results; and a third yields a crop perhaps double that of any other field receiving an equal amount of lime from any other source. He looks at the crops, scratches his head, but the operation elicits no rational idea, and he dreams himself to the conclusion that the moon, or weather, or insects, or witchcraft, or something else which it would be idle, or perhaps *book-farming* for him to look after, had caused the difference.

If he would take these minerals to a thorough chemist, he would find that the first specimen was magnesian lime, the second carbonate of lime, and the third contained a notable proportion of phosphate of lime. He would then know, if he knew anything of the effects of each, that one half or one fourth of the first (according to the proportion of magnesia it contained), would have saved him his crop which had been destroyed, and been a lasting benefit to his land; while the use of the last afforded a dressing of incalculable value to such soils as were deficient in it.

APPROVED VARIETIES OF FRUITS.

At the National Pomological Convention, recently held in this city, which was composed of many of the most eminent fruit growers from the northern, middle, and western states, after three days' discussion, the following select list of fruits was recommended for cultivation throughout the country, as thriving the best in the different soils and climates of the United States:—

Peaches.—Varieties recommended for general cultivation. Grosse Mignonne, Early York (serrated), Old Mixon (free), Coolidge Favorite, Crawford's Late, Bergen's yellow. For particular localities, Heath Cling.

Plums Recommended for General Cultivation.—Jefferson, Washington, Green Gage, Purple Favorite, Coe's Golden Drop, Bleecker's Gage, Frost Gage, Purple Gage. For particular localities, Prince's Imperial.

Cherries.—Varieties recommended for general cultivation. Black Eagle, Mayduke, Bigarreau,

Black Tartarian, Knight's Early Black, Downer's Late Red, Elton, Downton.

Apples.—Varieties recommended for general cultivation, Early Harvest, Large Yellow Bough, American Summer Pearmain, Gravenstein, Summer Rose, Early Strawberry, Fall Pippin, Rhode Island Greening, Baldwin, Roxbury Russet. For particular localities, Yellow Belle fleur, Swaar, Esopus Spitzenburg, Newtown Pippin.

Pears.—Varieties recommended for general cultivation. Madeline, Dearborn Seedling, Bloodgood, Tyson, Bartlett, Seckle, Louise Bonné de Jersey, Flemish Beauty, Beurré, Bosc, Winter Nelis, Beurré D'Aremberg, Golden Beurré, of Bilboa. For certain localities, White Doyenné, Gray Doyenné.

THE COW—HER DISEASES AND MANAGEMENT.—No. 8.

Rheumatism of the Loins, or Lumbago.—The cause of this disease is attributed to obstructed perspiration, brought on by colds; and this cause will be the more active where the body of the animal is already in a morbid state. The seat of the malady is evidently in the tendons and muscles of the loins which acquire a diseased rigidity and harshness.

The first symptoms of the disease are a loss of milk, attended with fever, costiveness, and loss of appetite. On motion in the stall, the animal reels from one side to the other, and sometimes falls down, as if having no use of her hind legs; she then rises with the greatest difficulty, or cannot rise at all without assistance. When turned loose, she walks with great difficulty with her hind limbs; and, in addition to these symptoms, in the progress of the disease, her skin adheres tight to her body. Many symptoms may also show themselves from a violent strain of the loins, by one cow riding another, as happens in times of heat; but this accident may generally immediately be perceived.

The first remedy to be applied, in the treatment of this malady, as in other inflammations, is bleeding, proportioned in its quantity to the violence of the symptoms, and the strength and condition of the animal, say from three to five pints. When the bleeding is over, the following medicines may be mixed together and given, milk warm, in two quarts of water gruel and half a pint of molasses:—

Sulphur, from 9 oz. to 1 lb.; grains of Paradise, (cardamom seeds), 3 drachms; saltpetre, 1½ oz.; tumeric, ¾ oz.; cummin seed, ¾ oz.

This medicine usually operates briskly, and will often continue for ten or twelve hours. After its operation is over, the following combination will be proper, mixed together and given to the animal, at one dose, in three pints of mild ale or beer, with a handful of wormwood previously boiled, which dose may be repeated, if necessary, once a day:—

Saltpetre (nitre), 1½ oz.; flour of sulphur, 1½ oz.; camphor, ¾ drachms; juniper berries, 1½ oz.; long pepper, ¾ oz.; oil of turpentine, 1½ oz.

Besides the above, local applications will often be found highly useful. For instance, the following *charge*, laid on the loins of the animal, as the weakness appears more in that part than any other; for she can generally raise her fore parts, while the hind ones seem useless:—

Black and Burgundy pitch, ¾ lb.; oxycroceum and paracelsus plasters, 3 oz.; bole Armenian and dragon's blood, 1½ oz.

To be melted over the fire, and spread, while hot, but not so hot as to scald, all over the rump, as well as the loins. Some wool or saddler's stuffing, should be stuck on it, in order to keep it in its place. As soon as this is completed, the cow must be got up and put into a sling, made of sacking and ropes, so that she may feel the floor with her legs, which are to be well rubbed two or three times a day. She must remain in this situation till she can stand of herself, and get up without the assistance of the sling. The disease generally gives way to this practice in the course of ten or fifteen days.

The food and drink to be given during the treatment of this disease may be the same as recommended in other inflammations, such as an abundance of warm water gruel, or mashes made of malt, bran, or Indian meal.

Consumption, or Wasting.—This complaint is generally caused by cold and improper food; the former excites inflammation, and produces ulceration in the lungs; while the latter, either by conveying deficient nourishment or nourishment of an improper kind, will produce the same effect. In proof of this last assertion, there are instances on record, of potatoes being given to cows in excess, and continued for some time, with the view of increasing their yield of milk, the consequence of which was, that, though they gave a greater proportion of milk, they fell into this disease, and were seized with a wasting and a cough. Besides this, where food of a forcing nature is given to the animal, as beets, carrots, parsnips, &c., for the purpose of promoting the flow of milk, the consequence will be to produce this disease.

The predominant symptoms of this malady, are a gradual emaciation of the body of the animal, or pining away, attended with a slow fever and a cough; but where the appetite is not much affected, the progress of the complaint is generally marked by an attack of looseness, which, in the end, proves fatal. During the course of the disease, there prevails a remarkable flow of milk, which tends to exhaust the strength of the cow, and consequently the symptoms increase. It may be remarked, however, that this wasting seldom occurs in the country, but is chiefly confined to cows confined to stalls in town, the mode of feeding of which is different from that of those kept in a free and open situation, on different food.

When the first symptoms of this complaint appear, the object should be to prevent, as far as possible, the wasting of the body from going farther, to the injury of the animal. She should be dried off immediately, or kept no longer for the purpose of milking. This will often be sufficient to effect a cure. Where the disease is connected with inflammation of the lungs, bleeding, and the same treatment recommended under the head of "Inflammation of the Lungs," at p. 207, is the only plan, perhaps, that can be adopted with success; but when the disease is far advanced, this and every other mode of treatment, as far as known, will be found ineffectual.

AGRICULTURE OF THE CHINESE.—No. 12.

Varieties of Tea Manufactured for the European and American Markets.—In order to give the reader some idea of the different sorts of teas manufactured for the European and American markets, I cannot do better than quote some excellent remarks on this subject, by Sir John Francis Davis, in his work, "The Chinese."

As tea has always held so principal a place in our intercourse with China, it requires some particular consideration as an article of commerce. We have seen before, that the fineness and dearness of tea are determined by the tenderness and smallness of the leaf when picked. The various descriptions of the black diminish in quality and value as they are gathered later in the season, until they reach the lowest kind, called by us Bohea, and by the Chinese *Ta-cha*, "large tea" on account of the maturity and size of the leaves. The early leafbuds, in spring, being covered with a white silky down, are gathered to make pekoe, which is a corruption of the Canton name *Pak-ho*, "white down." A few days' longer growth produces what is here styled "black-leaved pekoe." The more fleshy and matured leaves constitute souchong; as they grow larger and coarser they form Congou; and the last and latest picking is Bohea. The tea farmers, who are small proprietors, or cultivators, give the tea a rough preparation, and then take it to the contractors, whose business it is to adapt its farther preparations to the existing nature of the demand. The different kinds of tea may be considered in the ascending scale of their value.

1. *Bohea*, which in England is the name of a *quality*, has been already stated to be, in China, the name of a *district* where various kinds of black tea are produced. The coarse leaf brought under that name to this country is distinguished by containing a larger proportion of the woody fibre than other teas; its infusion is of a darker color, and as it has been more subjected to the action of fire, it keeps a longer time without becoming musty than the finer sorts. Two kinds of Bohea are brought from China; the lowest of these is manufactured on the spot, and therefore called "Canton Bohea," being a mixture of refuse Congou with a coarse tea called Woping, the growth of the province. The better kind of Bohea comes from the district of that name in Fokien, and, having been of late esteemed equally with the lower Congou teas, has been packed in the same square chests, while the old Bohea package is of an oblong shape.

2. *Congou*, the next higher kind, is named from a corruption of the Chinese *Koong-foo*, "labor or assiduity." It formed for many years the bulk of the East-India Company's cargoes; but the quality gradually fell off, in consequence of the partial abandonment of the old system of annual contracts, by which the Chinese merchants were assured of a remunerating price for the better sorts. The consumption of Bohea in this country has of late years increased, to the diminution of Congou, and the standard of the latter has been considerably lowered. A particular variety, called *Campoi*, is so called from a corruption of the original name *Kien-peoy*, "selection—choice;" but it has ceased to be prized in this country, from the absence of strength—a characteristic which is stated to be generally esteemed beyond delicacy of flavor.

3. *Souchong* (seaou-choong, "small, or scarce sort"), is the finest of the stronger black teas, with a leaf that is generally entire and curly, but more young than in the coarser kinds. What is called "Padre Souchong" is packed in separate paper bundles, of about half a pound each, and is so fine as to be used almost exclusively for presents. The probability is that its use in that way by the Catholic missionaries first gave rise to the name. The finest kinds of souchong are sometimes scented with the flowers of the *Chloranthus inconspicuus*, and *Gardenia florida*; and they cannot be obtained, even among the Chinese, except at dear prices. A highly-crisped and curled leaf called *Sonchi*, has lately grown into disrepute and been much disused, in consequence of being often found to contain a ferruginous dust, which was probably not intended as a fraud, but arose from the nature of the ground, where the tea had been carelessly and dirtily packed.

4. *Pekoe* being composed mainly of the young spring buds, the gathering of these must, of course, be injurious, in some degree, to the future produce of the shrub, and this description of tea is accordingly both dear and small in quantity. With a view to preserving the fineness of flavor, the application of heat is very limited in drying the leaves, and hence it is, that pekoe is more liable to injury from keeping than any other sort of tea. There is a species of pekoe made in the green-tea country from the young buds, in like manner with the black kind; but it is so little fired that the least damp spoils it; and for this reason, as well as on account of its scarcity and high price, the hyson pekoe, as some call it, has never been brought to England. The Mandarins send it in very small canisters to each other, or to their friends, as presents, under the name of *Loong-tsing*, which is probably the name of the district where the tea is made.

Green teas may generally be divided into five denominations, which are—1. *Twankey;* 2. Hyson skin; 3. Hyson; 4. Gunpowder; 5. Young Hyson.

Twankey tea has always formed the bulk of the green teas imported into this country, being used by the retailers to mix with the finer kinds. The leaf is older, and not so much twisted and rolled as in the dearer descriptions; there is altogether less care and trouble bestowed on its preparation. It is, in fact, the Bohea of green teas; and the quantity of it brought to England has fully equalled three fourths of the whole importation of green.

Hyson Skin is so named from the original Chinese term, in which connection the *skin* means the *refuse*, or inferior portion of anything; in allusion, perhaps, to the hide of an animal, or the rind of fruit. In preparing the fine tea called hyson, all those leaves that are of a coarser, yellower, and less twisted or rolled appearance, are set apart and sold as the refuse or "skin tea," at a much inferior price. The whole quantity, therefore, depends on, and bears a proportion to, the whole quantity of hyson manufactured, but seldom exceeds two or

three thousand chests in all. The word *hyson* is corrupted from the Chinese name, which signifies "flourishing spring," this fine sort of tea being of course gathered in the early part of the season. Every separate leaf is twisted and rolled by hand, and it is on account of the extreme care and labor required in its preparation, that the best hyson tea is so difficult to procure, and so expensive. By way of keeping up its quality, the East-India Company used to give a premium for the two best lots annually presented to them for selection; and the tea merchants were stimulated to exertion, as much by the credit of the thing, as by the actual gain in price.

Gunpowder, as it is called, is nothing but a more carefully-picked hyson, consisting of the best rolled and roundest leaves, which give it that *granular* appearance whence it derives its name. For a similar reason, the Chinese call it *Chooca*, "pearl tea."

Young Hyson, until it was spoiled by the large demand of the Americans, was a genuine, delicate young leaf, called in the original language *Yu-tsien*, "before the rains," because gathered in the early spring.

The remission of the tea duties in the United States occasioned, in the years 1832 and 1833, a demand for green teas at Canton which could not be supplied by the arrivals from the provinces. The Americans, however, were obliged to sail with cargoes of green teas within the favorable season; they were determined to have these teas; and the Chinese were determined they should be supplied. Certain rumors being afloat concerning the manufacture of green tea from old black leaves, the writer of this became curious to ascertain the truth, and with some difficulty persuaded a Hong merchant to conduct him, accompanied by one of the inspectors, to the place where the operation was carried on. Upon reaching the opposite side of the river, and entering one of these laboratories of factitious hyson, the parties were witnesses to a strange scene.

In the first place, large quantities of black tea, which had been damaged in consequence of the floods of the previous autumn, were drying in baskets with sieve bottoms, placed over pans of charcoal. The dried leaves were then transferred in portions of a few pounds each to a great number of cast-iron pans, imbedded, in chunam or mortar, over furnaces. At each pan stood a workman stirring the tea rapidly round with his hand, having previously added a small quantity of *turmeric* in powder, which, of course, gave the leaves a yellowish or orange tinge; but they were still to be made green. For this purpose some lumps of a fine blue were produced, together with a white substance in powder, which, from the names given to them by the workmen, as well as their appearance, were known at once to be *prussian blue and gypsum* (sulphate of lime). These were triturated finely together with a small pestle, in such proportion as reduced the dark color of the blue to a light shade; and a quantity equal to a small tea-spoonful of the powder being added to the yellowish leaves, these were stirred as before over the fire, until the tea had taken the fine bloom color of hyson, with very much the *same scent*. To prevent all possibility of error regarding the substances employed, samples of them, together with specimens of the leaves, in each stage of the process, were carried away from the place.

The tea was then handed in small quantities on broad shallow baskets, to a number of women and children, who carefully picked out the stalks, and coarse or uncurled leaves; and, when this had been done, it was passed in succession through sieves of different degrees of fineness. The first sifting produced what was sold as hyson skin, and the last bore the name of "young hyson." As the party did not see the intermediate step between the picking and sifting, there is reason to believe that the size of the leaves was first reduced by chopping or cutting with shears. If the tea has not highly deleterious qualities, it can only be in consequence of the coloring matter existing in a small proportion of the leaf; and the Chinese seemed quite conscious of the real character of the occupation in which they were engaged; for, on attempting to enter several other places where the same process was going on, the doors were speedily closed upon the party. Indeed, had it not been for the influence of the Hongist who conducted them, there would have been little chance of their seeing as much as they did.

CULTIVATION OF THE COMMON LOCUST TREE.

THE soil in which the locust (*Robinia pseudacacia*), appears to grow best, is a light and somewhat sandy loam, rich rather than poor; and to attain any considerable size, it requires much room, and an airy, but at the same time, a sheltered situation, free from the fury of the winds. It has the quality of thriving for a time on poor, shallow soils, which, no doubt, is owing to its power of rapidly abstracting whatever nourishment such soils may contain, by its large, succulent roots, that run near the surface; but after a few years it becomes stunted and unhealthy, decays at the heart, and never attains a size sufficient for any useful purpose, except for fuel.

Propagation and Culture.—The locust may readily be propagated by seeds, which may be sown as soon as they are ripe, in October, or the operation may be deferred until the March or April following. Whether they are sown in autumn or spring, however, they will come up the ensuing summer, and the plants, by the end of the season, will be fit either for transplanting into nursery lines, or to the places where they are finally to remain. The seeds, if exposed to the air two years, after being gathered, lose their power of vitality; but if they be kept in their pods, and buried a considerable depth in dry soil, they will remain good for five or six years, or perhaps longer. As seed-bearing trees seldom produce two abundant crops in succession, a reserve should be kept from one year to another. The great difficulty experienced in causing locust seeds to vegetate, operates as a discouragement with many, as they require to be prepared before sowing, in order to soften their hard and shelly pericarps, or hornlike envelopes, in which nature has deposited their germs. A writer in the "Maine Cultivator," recommends pouring water over the seeds, previously heated to the

boiling point, and suffering it gradually to cool. After twenty-four hours, to decant the water from the seeds, and select such as have opened, for immediate sowing. He also recommends another mode, and perhaps a somewhat more economical one, so far as time is concerned, which is, to subject the seeds to the action of nitric acid mixed in the proportion of half an ounce to two quarts of water. The seeds are to be steeped in this mixture for twenty-four hours before sowing, and the water kept tepid, or slightly warm, by means of an oven or stove. By this process, the perfect seeds will at once evince signs of vitality and germination, while those which remain unaffected at the end of twenty-four hours, will probably be unsound, and may be thrown away. An experiment is related in Wither's "Treatise," by the results of which, it appears that "immersion in hot water accelerates germination, but tends to destroy or injure the seeds." Mr. Loudon, in his "Arboretum Britannicum," remarks that, steeping Australia and Cape acacia seeds for twenty-four hours, in water which had been poured on them in a boiling state, or nearly so, accelerated their germination nearly two years. Great caution should be observed, however, in experiments of this kind, as even a short continuation of seeds in water at the temperature of 212° F., must of course destroy the vital principle.

The seeds should be sown in a good, free, warm soil, rather rich than otherwise, an inch or two apart every way, and covered with finely-pulverized earth, from a quarter to three quarters of an inch deep. In fine seasons, the plants will grow from two to four feet in height, the largest of which may be removed in the following autumn, to the places where they are finally to remain, and the others may be transplanted into nursery lines. In regard to the removal of the locust, Loudon observes, that "it will transplant at almost every age, and with fewer roots than almost any other tree." The trees should never be suffered to stand nearer than fifteen feet apart, in any soil, and should they be consigned to a soil thin and light, they should be planted at least twenty feet asunder. As they advance in age and growth, care should be taken to clear out all broken branches or dead wood from their tops, and to keep down their suckers, which will sometimes issue from their roots, where the soil is moist and rich. Under favorable circumstances, the plants will sometimes produce annual shoots from six to eight feet long for several years after planting; whereas, in wet or poor soils, they will not exceed one fourth of this length. After the first ten or twelve years, upon good land, the locust will probably have attained a height of fifteen or twenty feet, with a diameter of three or four inches; and then its growth, in general, becomes very slow; and few trees, at the expiration of fifty or sixty years, will be found over fifty feet in height, and one foot in diameter.

To Improve the Quality of Fruit.—The quality of the fruit of a grafted tree is said to be improved if you graft it over with the same variety, provided your scions come from a tree whose fruit is of better quality.

REVIEW OF THE AUGUST NUMBER OF THE AGRICULTURIST.

Topping Corn.—The experiment suggested by the editor ought also to be tried as to what effect the stripping the leaves from the stalks has upon the grain, as at the south, the stalks are never cut, but "pulling blades," is done to a great extent. Many farmers depend entirely upon "blades" for winter feed, and never use hay. I fully agree with the editor, that this is a subject of vast moment to the farmers of a large portion of the United States;" and if it is a fact, that topping corn does lessen the crop by "one fifth," or even one twenty-fifth, the practice ought to be abandoned at once. It is probable that one fourth of the corn crop of this country is annually stripped of its stalks or leaves, and if by so doing it deducts one fifth from the yield, it will lessen the amount a vast number of bushels. Perhaps there is no more important subject discussed in your columns than this one. The experiment will never be sufficiently well tried until some of our agricultural societies offer premiums large enough to warrant the trouble and expense of making the trial in different parts of the country, for several years. Who will be the first to move in the matter?

Green-Sand Marl.—The value and importance of this singular and but little known substance, is hardly thought of by many who are aware of its existence. In fact, its existence was known for many years before it was ever thought of as a manure. No doubt, that, hereafter, other things will, like this, be accidentally discovered to possess fertilizing properties, and that many other farms, lying along the marl belt, will, like Dr. Bartlett's, be found to possess valuable beds of this fertilizer; and it is well worth the attention of those interested, to make careful examinations. The great difficulty, however, is the want of faith among those who are equally as much interested as Dr. B., but who, unlike him, would never undertake to haul such a substance three miles to convince themselves of its value. I know men now, who laugh at the idea of hauling "green sand" for manure. It is only by the slow process of the example of such men as Dr. Bartlett, that they will finally become convinced. And some of them will not give up when they actually see the effects upon his fields. They fight against light and reason.

Adulteration of Food, No. 2.—We read the account of these adulterations, with wonder and almost incredulity. Yet are we constrained to believe, and then inquire what is the remedy? In buying a barrel of flour, we cannot stop to examine whether one fourth of the quantity is made up of "potatoes, beans, peas, Indian corn, rye, chalk, bones, powdered white flints, plaster of Paris," and I know not what other indigestible substances. If the adulteration of flour is carried on to the extent that many believe, particularly for exportation, it becomes Congress as much to look into that matter as after the adulteration of drugs. And it certainly would become our "city fathers" to devise means to prevent our buying and eating so many drugs in our bread. But there is one thing to be borne in mind in relation to mixing these drugs, or

some of them in bread—*the taste of the public requires it.* True, it is a vitiated taste, but yet it seems to be the prevailing one, that requires all of our wheaten loaves to be very light and white as driven snow. And for this, nutritious and healthy food is drugged till just about as fit to eat as a whitewashed sponge would be. I do most earnestly urge upon the attention of every editor to agitate the subject until a reform is effected.

Remarkable Cows.—"It is a pity that every calf from such a cow, whether male or female, could not be saved for breeders." This sentence is found in remarks upon a cow of Mr. Cumings', in an article immediately preceding the one under notice. Every friend of improvement will subscribe to the doctrine. Now let me ask if our whole system of premiums at all of our agricultural shows, is not based upon principles of a diametrical tendency from this? It appears to me that fineness of form and fatness of carcass are more likely to win favor with the dispensers of premiums, than great milking qualities.

The Tallow Tree of China.—Is this a relation of the tallow tree of New England? [No. The "tallow tree" of Rhode Island is the ailantus, or "tree of heaven," so common in most of our Atlantic cities and larger class of towns, which is corrupted from *tilou*, the French name of this tree.] However, it is of no consequence. I shall not recommend the cultivation of either, because we have a much more prolific tallow tree in this country, the seed of which is usually in this latitude, planted about the 20th of May, and the crop gathered in October. The tallow is most successfully extracted from the seed, by feeding it to an animal whose progenitors are said to have come from China. "The tallow then resembles" corn-fed pork. It may also be remarked that the "candles made from this substance, in winter, have a tendency to get soft in summer," and therefore the ingenious Yankee nation have invented a process by which candles are made superior to those from any other kind of "tree tallow," namely, "stearine" or "adamantine candles."

Gutta Percha.—One of the uses of this substance not enumerated by you, and probably not generally known among those most interested, is making *gaskets*, an article well known to all steam engineers, for making steam-tight joints in steam pipes. I have been informed by engineers, that gaskets made of gutta percha will outlast any other substance that they have ever used. I cannot see why this species of tree cannot be grown in Florida or Texas. Shall we ever have a department in our general government, *a secretary of home affairs*, to attend to matters of far more benefit to us, as a nation, than the science of throat cutting and all the kindred accomplishments of war and carnage?

Cost and Profit of Raising Wheat and Indian Corn, &c.—I cannot go over all these statements, though I cannot help thinking that they give a false coloring. It is from such statements that novices are led into errors. The profits of farming look so flattering on paper, that many undertake it without due consideration, and their failure deters others from embarking in a pursuit, that, if judiciously managed, would afford a more comfortable subsistence than they obtain as hangers-on of a city life. On the other hand, many a man has been tempted from a comfortable New-England home, by just such statements as that of the Hon. Mr. Henley, member of Congress from Indiana, in which he has proved by an indisputable array of figures, that the raising of wheat upon the great western prairies, only costs "*twenty-five cents a bushel.*" Now in truth is this so? If it is, then should we all be tempted to emigrate to that Paradise of wheat growers. True, he does hint that a crop is occasionally blighted; and that "considerations contribute to swell the *average* expense of producing wheat on the western prairies to probably "*thirty-five cents* per bushel;" that is, of course delivered in market; for he gives the cost of transportation, at two dollars an acre; that is, less than 5¾ cents a bushel for hauling twenty miles. His estimate of cost of harvesting and threshing is equally erroneous. As this is a very important matter, and as this error is liable to lead us, poor grubbing Yankees astray, or at least cause us to think that our lot is cast upon a soil that does not pay for cultivation, and tempt us to go where we can raise wheat so cheap, I pray you bear with me while I show this picture in another light. To enable me to do this, I have corresponded with a wheat-growing friend of mine in the neighborhood of Chicago. He thinks that the distance wheat is hauled into that immense depôt, will average at least thirty-five miles, at a mean expense of 12½ cents a bushel. From careful examination, my friend is satisfied that, throughout all the region that sends its crop to the Chicago market, the yearly average yield of all the wheat sown, will fall below *ten* bushels per acre! The cost of plowing, or breaking up prairie, he says, is fairly given, and that is about the only correct item in Mr. Henley's statement. The estimated cost of growing an acre of wheat, on the Illinois prairie, then he gives as follows:—

Plowing one acre of old ground, not less than - - - - - - -	0.75
If only decently seeded, two bushels will be used; average 75 cents, - -	1.50
Sowing, and harrowing, at least three times over, - - - - - -	1.00
A cradler half a day; raker and binder half a day; average wages $1 and board, - - - - - - - -	1.25
Shocking and stacking, - - - -	0.75
Threshing, will average, counting all expenses, 12½ cents a bushel, - -	1.25
Average cost of hauling to market, 12½ cents per bushel, - - - - -	1.25
Total, - - -	$7.75

This is counting the yield at his estimate of ten bushels per acre. Of course, the plowing and sowing, would cost no more for a crop averaging 35 bushels, but the harvesting would, and the threshing and hauling 25 cents upon each additional bushel. What the average price of wheat in that market is, my friend does not give; but, supposing it is 75 cents, the profit would be easily counted, if all the labor was hired, to say nothing of interest on land, &c.

Cold-Water Bathing.—Cold or warm, so that the bathing was done, I should look upon as

greatly conducive to health. And I do look upon it as a duty that every city corporation owes to the inhabitants, to establish public baths. Every step taken to keep the persons of a population cleanly, is two steps towards improving their morals. No dirty population was ever one of good morals. No public improvement would be of more benefit to a large class of the population than one which would give the facilities for bathing to the working classes of all cities. No dwelling ought to be considered finished without a comfortable bath room. I have experienced so much benefit from bathing in sickness, that I am thus urgent in its recommendation.

Sheep Yard and Stables.—When the western prairies and mountainous regions of our country can boast of such as are here represented, then we shall not be pained with the account of so many sheep perishing for want of shelter.

Economy in Building Materials.—Let us examine whether it would be *economy* for the farmer to use stone, brick, and iron, almost exclusively in building. In most parts of the United States, buildings can be made of wood far cheaper than of any other material. I suppose that a barn built of wood, for instance, which would cost $300, might cost $1,000 if made of stone, brick, and iron. The interest on the excess of cost, $700, at 7 per cent. is $49 per annum, a sum sufficient to build a new frame barn every six years. Should it be economy to expend the $700 in building a barn of imperishable materials, notwithstanding it might "last a century," or even untold centuries? I fully believe that iron might be economically used in some cases, for building in cities, but I doubt the economy of substituting it for wood, in farm buildings, in a country where wood is so cheap as it is in the United States. It is nevertheless true, that "farmers and others, of this country, too frequently build for temporary use." It is still more true, that those do not study economy, who, as is very often the case, "build themselves out of house and home." I fear that this would still more often be the case, if farmers generally undertook to follow the advice of Mr. Cooke, and "discontinue the use of all kinds of lumber hitherto employed in the construction of houses." Much more might be said upon this subject.

A Few Simple Facts.—This is a very erroneous head placed over a very important article. It should have been headed "A Few Very Important Facts." If facts that are calculated to save human life, are not important, I don't know what are. The writer speaks of stopping dangerous bleeding. I have often found pulverized gunpowder to be one of the best stiptics ever used. One of the most ready ways to prevent the fatal effects of the poison of a snake, is immediately to suck the wound. If the person can get at it himself, suck hard and thoroughly at once, without fear. If out of reach of the mouth of the person, it is better to get a friend to do it. If the mouth is sound, no danger can possibly arise, or a little oil or lard taken in the mouth previously, would enable any person with perfect impunity to suck all the poison out of any snake bite, unless it had penetrated a large artery.

Another Fact Relating to the Potato Disease, communicated by Mr. Betts, of Newburgh, is quite sufficient to knock down several very fine theories upon this matter. The fact is, though knocked down, I expect to see them and their advocates up and running again, for they are as hard to kill as the buffalo; for, in another article, it is said that "no animal requires so much killing as buffaloes;" but the animal that theorizes upon the potato rot, ought to have been excepted. "The buffalo invariably evinces the greatest repugnance to lie down when mortally wounded;" and so does the theorizer upon this unaccountable calamity.

American Holly Hedges.—"The American holly is the sturdiest and best armed tree in the world, and flourishes in all locations." Does it? Did the writer of this article ever see it growing in the northern part of the United States, in any degree of abundance? It may be said to be a native of New Jersey, but further north, or even in the mountain regions of the south, I think there are a few locations where it does not flourish. I think I have seen a few specimens in the vicinity of Boston, but whether natives or not, I cannot say. But one thing I can say, that is, holly hedges, will never *flourish* in many locations north of the home of the "South Carolinian."

Venitian, or Tanner's Sumach.—I do most cordially extend the right hand of fellowship to Mr. Prince, for the sentiment "that the first object of our country should be to render herself perfectly independent of foreign supplies of all articles which could be produced from our own soil." And it is "humiliating" to think that we should be willing to continue in such a state of ignorance, as we do, in regard to what might be made far more profitable in cultivation than the old routine of crops cultivated by ourselves and our ancestors, since the first settlement of the country. Perhaps not one in ten of the cultivators of American soil, are aware that sumach is imported into this country from Italy and other parts of Europe. I do not know, myself, how great the demand is, nor what quantity would be required to supply the consumption of the globe; but this fact I do know, that there are millions of acres of waste land in the southern states, upon which it might be grown to an extent sufficient to tan and color all the fabrics in the world. The common sumach attains a size upon the rich lands of the Yazoo, suitable to make fence rails, and for which it is often used. And the Venitian sumach might be cultivated with more profit than cotton, if the cultivators could be insured anything like the present common prices. Unfortunately for the prosperity of this country, she is wedded to the idols of importation, and "free trade" is one of the humbugs of the age.

Directions for Gathering Garden Seeds.—If these directions of "E. S." were honestly carried out, by all gardeners, we never should hear so much about the necessity of "changing seed." It is the indiscriminate planting of all manner of seeds, that is the cause of vegetables "running out." Why do we not remember and practice upon the method of Mr. Brown, in selecting Indian corn seed? Who has forgotten the anecdote of the "barrel wheat," where a man made such a great improvement and gained a great prize for seed wheat, by whipping the sheaves over a barrel to get the seed off the largest and best heads until he almost pro

duced a new variety? But I hope we are in an improving condition. "The schoolmaster is abroad" and giveth much good teachings in many papers in our blessed country, to those who cultivate the soil and should save and plant good seed.

REVIEWER.

ROUGH NOTES BY THE WAY.—No. 4.

FINDING my business likely to detain me a day or two at Philadelphia, and not relishing the heated air of that city, I took an early boat and had a delightful sail up the Delaware to the memorable old town of Burlington, in order to pass a day with my venerable friend, Captain Richard Cleveland, who published, some years since, an account of his voyages and travels in the south seas, a second edition of which is shortly to be issued from a Boston press. He and his good lady are residing with their son, H. W. S., in a beautiful cottage on a highly improved farm on the banks of the Delaware, eking out a "green old age."

Not having seen his son since quite a youth, and knowing that he had been tenderly reared and educated, I inquired of him, after witnessing his improvements on a worn-out, sterile soil, by what fortuitous circumstances he had been thrown into so delightful an occupation, upon which he related, as near as I can recollect, the following incidents of his life, which I will give to the public for the good of thousands of our young men, who know not how to employ their time:—

Until the age of 28, he had never done a day's work on a farm, and was ignorant of all rules of husbandry. He never even imagined that he had any taste for the business, having always been used to an active life, and for several years had been engaged in surveying in the wild parts of the country, living in a tent, and subject to such constant fatigue and exposure, that the hard labor of a farm, instead of being so severe, as it is generally found by men bred to more sedentary pursuits, was rather less so than he had been previously accustomed.

Having decided to make a farmer of himself, if possible, he went into the western part of Massachusetts, where he was an entire stranger, and "hired out" to one of the hard-working yeoman of county Berkshire. He told him he wanted to make himself familiar with the manual labor of a farm, and that if he would let him work for him a month he could then decide what his labor was worth, and pay him accordingly. At the end of the month, the farmer said he would give $8, which was better than he expected. He worked the whole season at all kinds of labor, and felt at the end of it, that, instead of losing a year's time, which some of his friends told him he would do, he had gained much more than its value. He then began to look about for a farm; and, in the course of the following winter, was engaged in making enquiries and examinations, and also in studying carefully the best works he could procure on agriculture. In the spring of 1842, he purchased the farm which he now occupies. Its natural capacities were good, and some portions were in excellent condition; but much of it was light land, in consequence of which he had to incur heavy expenses, for fences and repair of buildings. In the first summer, he hired a couple of Irishmen to clean out a small pond, on his place, from which they procured 500 loads of rich muck, or marl. This he hauled upon the hill in the rear of his farm, in the fall, and let it lie in small heaps till spring, where, by the action of the frost, it had crumbled like fallen lime. He then spread it evenly, and mixed it with the soil by a light plowing. The hill was so light that he was told, when he bought the farm, he would see it all blowing away in a high wind, and he believed nobody had previously thought of cultivating it; but after this dressing, he found no difficulty in raising 35 bushels of corn per acre, and has continued to cultivate it annually to advantage, and with manifest improvement.

He soon decided, however, that by far the most profitable use he could make of his land would be in the culture of choice fruits. Situated as it is, directly on the river, and also on the Camden and Amboy Railroad, its products may be sent to Philadelphia in an hour, and to New York in four hours. With such facilities, and such a favorable soil and climate as ours is for horticultural operations, he could not but see the advantages thus offered; and, from the first, he began planting fruit trees to such extent as his means would allow, and is gradually increasing them and diminishing his agricultural operations. He has already received sufficient evidence of the correctness of the experiment, and feels perfect confidence that the purchase of his farm was a good investment; and, for the further encouragement of such of your readers as may be deliberating upon the expediency of turning farmers, I will add that I do not know a position in life in which one could be so happy as in being actively engaged in the labors of the farm. Still, I must say, from all I have seen, I think it a dangerous experiment for any one to try, who has been accustomed entirely to a city life.

SAMUEL ALLEN.

Burlington, N. J., July 25th, 1848.

THE STRIPED BUG.

I BELIEVE most of the tillers of the earth in this section, have often suffered the loss of their melon and other vines, from the ravages of a small, active, striped bug, that destroys the young germ as soon as it appears. If any one is willing to take the trouble and expense, which is comparatively trifling, of following my plan, I think they may "beat the bugs." Make a box about three inches high and ten or twelve inches square, of strips of boards, and cover the top carefully with millinet fastened to the sides. By placing this carefully over the young plants, the bugs cannot gain entrance, and I believe, at the same time, it will assist the growth of the plants. If part of the melons or cucumbers are planted two weeks earlier, the same box may serve for both, and then, after the vines have no further need of protection, it may be stored away for another year.

Boxes of this description, which may be made by almost any one in the winter, can be made for two or three cents each. I.

Westbury, L. I., 10*mo.* 25*th,* 1848.

HOW TO BLEACH HONEY.—Dark-colored honey may be bleached by exposure in the open air for several days and nights, during cold and frosty weather.

FARMERS SHOULD WRITE FOR AGRICULTURAL JOURNALS.

As the season has arrived for the renewal of subscriptions to your journal, I would give, through your columns, some reasons why agricultural papers are not better patronized, with some of the leading objections urged against them.

The first, and probably one of the strongest objections, is, that a large proportion of farmers are averse to innovations, new plans, and systems, or in other words, of "new-fangled notions." The manufacturer and mechanic are ever on the alert, and ready to avail themselves of any improvements, inventions, or discoveries, that are made by ingenious men and learned professors. Talk to these farmers of the benefits that they may derive from the aid of science, they will look at you with an incredulous smile and ask—What do scientific men know about plowing, sowing, raising stock, &c.? Point out to them the advantages of a different mode of applying their manure, or a different system of rotation of crops, they probably will admit that it looks reasonable and right, but the "old system," the "system of their fathers" is good enough and has always supported them. Thus we have hundreds of honest, hard-working farmers, who *do* and *are* willing to trudge on in the old way. These men cannot be induced to take an agricultural paper. They say that they have not time to read; for, during the day, they are busy at work, and evenings, they are tired and sleepy; and if they read it, they say that they cannot understand the "high-flown talk" about carbon, oxygen, &c.

The second class of farmers who object to taking agricultural papers, are men who learned the art of farming in their youth—"it is their trade and they understand it thoroughly"—and they "wonder that editors of newspapers attempt to teach farmers farming." Happy souls! How enviable their condition.

We have a third class, who object, on the ground that the contributors are mainly scientific and theoretical men, or retired merchants who are known as "gentlemen farmers," without practical knowledge or experience, who support their farms, instead of their farms supporting them. Their knowledge of farming, they say, is gained by reading, and occasionally riding or walking over their farms, and publish accounts of overgrown cattle, fine sheep, and immense crops, raised at the cost of double their value, with whom the real farmers are neither willing nor able to compete. "Such farming will not answer for them, nor benefit them in any way." They have to get a living from their farms, and have no other resources to rely upon.

The first class of objectors are only to be overcome by the example of their more intelligent and enterprising neighbors. The second class of these modern Solomons and oracles of wisdom, who can learn nothing more, must be "left alone in their glory," until time and the march of improvement leaves them so far in rear that they are willing to confess their ignorance and call for light. As to the third class, the remedy is within their reach. They have the privilege equally with the amateur farmers, of contributing to agricultural journals. Then, practical farmers, at once avail yourselves of this privilege. Give us the result of your experience and correct the evils that you complain of; if you have made any discoveries or improvements in preserving and applying manures. in raising crops, in rearing and managing stock, write out a statement and send it to Mr. Allen, or some other editor, and I doubt not, it will be thankfully received and published. Would that be book farming? All theory and no practice? To all such objectors, I say, write yourselves, and make the papers what they should be—practical journals of agriculture. No system that is not based on practical results, will ever be regarded as valuable by intelligent men. The observations and experience of many intelligent, practical farmers, who have hitherto remained silent, would be a valuable addition to our agricultural literature, and of incalculable benefit to their co-laborers. To such farmers, I say, do not withhold your contributions because you are not skilled in grammar. It is not fine writing that we want, but facts and ideas conveyed in an intelligible manner. Farmers should learn, that, by an interchange of experience and opinion through the medium of agricultural journals, they can confer mutual benefits upon each other. They should also remember that these journals are published for the dissemination of a knowledge of the best modes of making, preserving, and applying manures to different crops; the best and cheapest methods of preparing the soil; the best and most economical manner and time of seeding and harvesting particular crops; the best kinds of crops for a particular soil or climate; and the best breeds, and the best manner of feeding or managing any particular kind of stock, &c. &c.

No man can fail to perceive that these results can be best attained by educated, intelligent, and practical farmers, aided by the almost daily discoveries, by means of science. G. P. Lewis.

Huntington, L. I., October, 1848.

EXTRACTION OF OIL FROM SUNFLOWER SEED.

I venture to address you for some information with reference to sunflower seed and its manufacture into oil. I desire to know if there is any appropriate machine invented for hulling the seed; one which hulls, and separates at the same time; and what is the process of separation.

Without experimenting, I have thought that winnowing would not answer, supposing there is not difference enough, if any, between the relative weight of kernel and hull. I have seen a statement that a buckwheat hulling machine had been employed satisfactorily; but as I do not know the nature of that machine (whether it separates as it hulls), I am not disposed to try it, without more knowledge. The statement I saw, gives the result of two quarts of oil to each bushel of seed, ground up hull and all, and six quarts if the hulls are separated from the kernels. Hence the importance of removing the hulls.

What would be the cost of the machine for hulling, and a suitable press for extracting the oil? What price would the seed command to ship to your market for sale? A reply to the above from any of your correspondents will very much oblige

D. Danforth.

Eufaula, Ga., October 10th, 1848.

COMMON ERRORS IN SCHOOL ARCHITECTURE.

UNDER this head it will be sufficient to enumerate the principal features of school houses as they are.

They are almost universally badly located, exposed to the noise, dust, and danger of the highway, unattractive, if not positively repulsive, in their external and internal appearance, and built at the least possible expense of material and labor.

They are too small. There is no separate entry for boys and girls appropriately fitted up; no sufficient space for the convenient seating and necessary movements of the scholars; no platform, desk, nor recitation room for the teacher.

They are badly lighted. The windows are inserted on three or four sides of the room, without blinds or curtains to prevent the inconvenience and danger from cross lights, and the excess of light falling directly on the eyes or reflected from the book, and the distracting influence of passing objects and events out of doors.

They are not properly ventilated. The purity of the atmosphere is not preserved by providing for the escape of such portions of the air as have become offensive and poisonous by the process of breathing, and by the matter which is constantly escaping from the lungs in vapor, and from the surface of the body in insensible perspiration.

They are imperfectly warmed. The rush of cold air through cracks and defects in the doors, windows, floor, and plastering is not guarded against. The air which is heated is already impure from having been breathed, and more so by noxious gases arising from the burning of floating particles of vegetable and animal matter coming in contact with the hot iron. The heat is not equally diffused, so that one portion of the school room is frequently overheated, while another portion, especially the floor, is too cold.

ELEVATION.—FIG. 88.

They are not furnished with seats and desks, properly made and adjusted to each other, and arranged in such a manner as to promote the comfort and convenience of the scholars, and the easy supervision on the part of the teacher. The seats are too high and too long, with no suitable support for the back, and especially for the younger children. The desks are too high for the seats, and are either attached to the wall on three sides of the room, so that the faces of the scholars are turned from the teacher, and a portion of them at least are tempted constantly to look out at the windows—or the seats are attached to the wall on opposite sides, and the scholars sit facing each other. The aisles are not so arranged that each scholar can go to and from his seat, change his position, have access to his books, attend to his own business, be seen and approached by the teacher, without incommoding any other.

They are not provided with blackboards, maps, clock, thermometer, and other apparatus, and fixtures, which are indispensable to a well-regulated and well-instructed school.

They are deficient in all of those in and out-door arrangements which help to promote habits of order and neatness, and cultivate delicacy of manners and refinement of feeling. There are no verdure, trees, shrubbery, nor flowers for the eye; no scrapers and mats for the feet; no hooks and shelves for cloaks and hats; no well, no sink, basin nor towels to secure cleanliness; and no places of retirement for children of either sex, when performing the most private offices of nature.

The following plans, &c., of school house, District No. 6, Windsor, Ct., are selected for representation and description, not because it is supe-

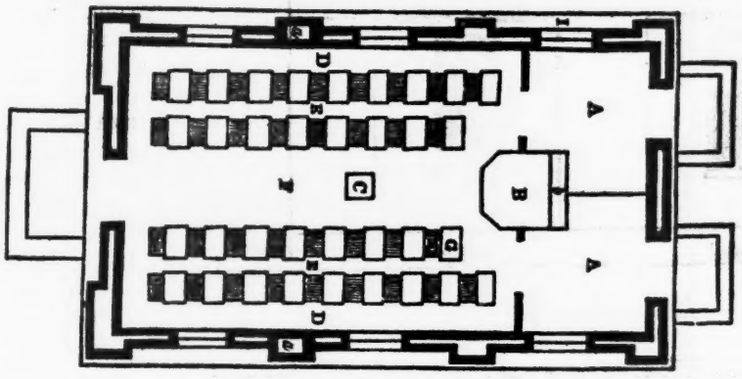
rior to all others, or is unexceptionable in every respect, but because the plan could be conveniently obtained, and in it the great principles of school architecture are observed.

The building stands 60 feet from the highway, near the centre of an elevated lot which slopes a little to the south and east. Much of the larger portion of the lot is in front, affording a pleasant play ground, while in the rear there is a woodshed, and other appropriate buildings, with separate yards for boys and girls. The walls are of brick, and are hollow, so as to save expense in securing antaes or pilasters, and to prevent dampness. This building is 33 feet 6 inches long, 21 feet 8 inches wide, and 18 feet 9 inches high from the ground to the eaves, including 2 feet base, or underpinning.

The entries A, A, one for boys and the other for girls, are in the rear of the building, through the woodshed, which, with the yard, is also divided by a partition. Each entry is 7 feet 3 inches, by 9 feet 3 inches, and is supplied with a scraper and mat for the feet, and shelves and hooks for outer garments.

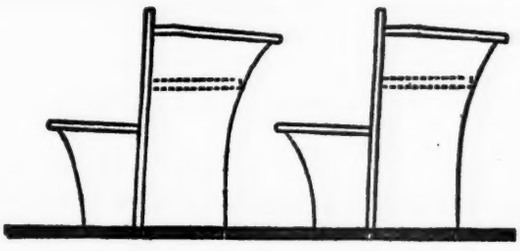
The school room is 24 feet 5 inches long, by 19 feet 4 inches wide, and 15 feet 6 inches high in the clear, allowing an area of 472 feet, including the recess for the teacher's platform, and an allowance of 200 cubic feet of air to a school of thirty-six.

The teacher's platform B, is 5 feet 2 inches wide, by 6 feet deep, including 3 feet of recess, and 9 inches high. On it stands a table, the legs of which are set into the floor, so as to be firm, and at the same time movable, in case the platform is need-



Ground Plan.—Fig. 89.

Top of Desk.—Fig. 90.



Section of Seat and Desk.—Fig. 91.

ed for declamation, or other exercises of the scholars. Back of the teacher is a range of shelves *b*, already supplied with a library of near 400 volumes, and a globe, outline maps, and other apparatus. On the top of the case is a clock. A black board 5 feet by 4, is suspended on weights, and steadied by a groove on each end, so as to admit of being raised and lowered by the teacher, directly in front of the bookcase, and in full view of the whole school. At the bottom of the black board is a trough to receive the chalk and the sponge, or soft cloth.

The passages D, D, are 2 feet wide, and extend round the room; E, E, are 15 inches, and allow of easy access to the seats and desks on either hand. F, is 5 feet 3 inches, and in the centre stands an open stove C, the pipe of which goes into one of the flues, *a*. The temperature is regulated by a thermometer.

Each pupil is provided with a desk G, and seat H, the front of the former, constituting the back or support of the latter, which slopes $2\frac{1}{2}$ inches in 16. The seat also inclines a little from the edge. The seats vary in height, from $9\frac{1}{2}$ in. to 17, the youngest children occupying those nearest the platform. The desks are 2 feet long by 18 inches wide, with a shelf beneath for books, and a groove on the back side *b* (Fig. 91) to receive a slate, with which each desk is furnished by the district. The upper surface of the desk, except 3 inches of the most distant portion, slopes 1 inch in a foot, and the edge is in the same perpendicular line with the front of the seat. The level portion of the desk has a groove running along the line of the slope *a* (fig. 90) so as to prevent pencils and pens from rolling off, and an opening *c* (fig. 90) to receive an inkstand, which is covered by a metallic lid.

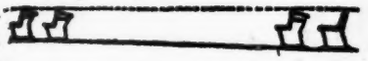
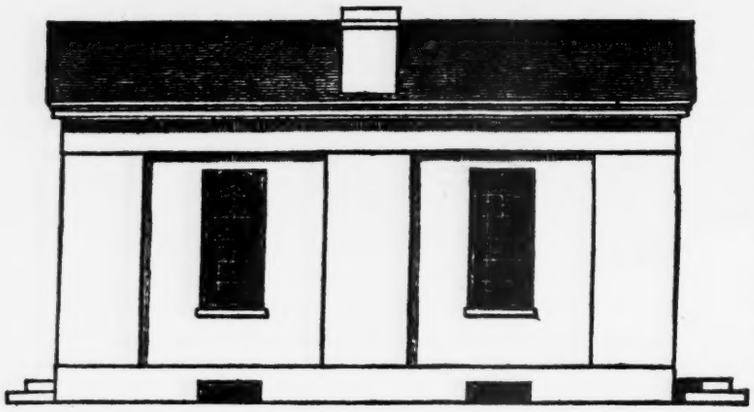


Fig. 92.

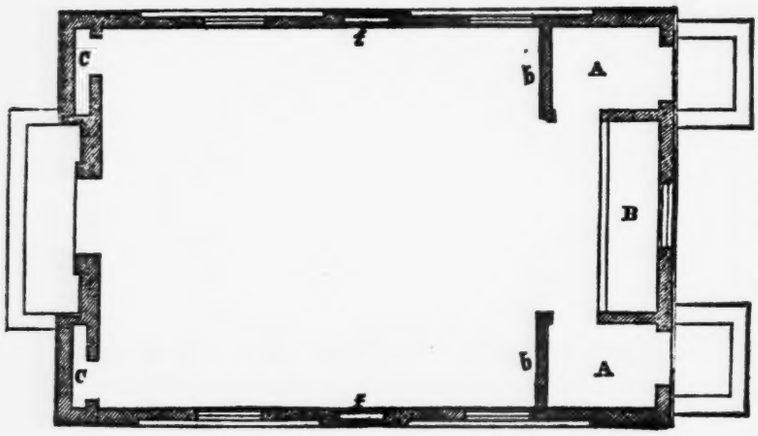
The windows, I, three on the north and three on the south side, contain each 40 panes of 8 by 10

glass, are hung (both upper and lower sash) with weights so as to admit of being raised or lowered conveniently. The sills are three feet from the floor. Those on the south side are provided with curtains and blinds.

The proper ventilation of the room is provided for by the lowering of the upper sash, and by an opening 14 inches by 18, near the ceiling, into a flue (fig. 89) *a*, which leads into the open air. This opening can be enlarged, diminished, or entirely closed by a shutter controlled by a cord.



Side Elevation.—Fig. 93.



Ground Plan.—Fig. 94.

The sides of the room are ceiled all round with wood as high as the window sill, which, as well as the rest of the wood work of the interior, is painted to resemble oak.

The above cuts represent a modification of the Windsor plan, as prepared for a primary school in Hartford The entries (A ,A,) are smaller. The teacher's platform is at the end, so as to overlook both yards in the rear.—*Barnard's School Architecture.*

Caution in the Use of Glass Vessels.—Hot water should never be poured into glass vessels till they are moderately warmed with tepid water, as the sudden expansion of the bottom by the heat of the water has a tendency to force it from the sides. Thin vessels are better able to endure sudden extremes of heat and cold than thick ones. because they are sooner heated through their thickness, and consequently expanded equally.—*Exchange Paper.*

STRAWBERRIES AND WINE IN OHIO.

We hear of no strawberries east, at this time, but the celebrated Scotch beehive, a single plant of which, it is said, will bear from 200 to 300 berries, and the fruit large. In letters I have written to some horticultural societies, I have ventured to pronounce this a humbug, and that the fruit would be small and about equal to your discarded Duke of Kent. When we desire fine new varieties of this fruit, experience should have taught us, that Europe was not the region to look to. They are too *larned* to know anything of this plant. They know that it belongs to a class, that is perfect in both organs, and it is time wasted to talk to them of staminate or pistillate plants. Pistillates are thrown away as barren, and only such are cultivated as are perfect in the male organs, and a portion of the blossoms perfect in both.

I have never yet met with an European gardener, who had ever noticed any difference in the character of the blossom. The beehive, I doubt not, will prove productive, but the fruit will be small. Like the Duke of Kent, it will be found to belong to a variety very rarely met with. A portion of the blossoms will be found wholly defective in male organs, and will always bear perfect fruit. The residue, perfect in stamens, and a portion perfect in the female organs, also, but some organs will be wholly defective in pistils, and bear no fruit, and a portion partially perfect in pistils, and bear defective fruit.

Mr. Jackson, last season, exhibited at our horticultural society a single plant of the Duke of Kent with 250 berries. I had a visit this evening from a gardener recently from Scotland. He informed me that no other strawberry was now thought of but the "beehive," and he had seen a plant with 240 berries on it; that he had seen a chance berry that measured *two inches in circumference*; that the famous Hovey's seedling was thrown away, as proving, in general entirely barren. Wise gardeners there! The only value of their beehive, is as an impregnator, and if they would plant a few of them in the vitinity of the Hovey, they would find it more productive than any variety they cultivate, and some of the berries on each plant would measure from 3½ to 5½ inches, if not more in circumference.

Our vintage is nearly over, and there is twice the quantity of wine made this season, that was made in any previous year, from our increased cultivation; though I presume the rot has on an average destroyed half the fruit. In my vineyards, the loss has been two thirds. My tenants calculated in the early part of the season, on making 25,000 gallons. Their present estimate, is 8,000. But one result surprises me. We have recently obtained German instruments to test the saccharine quality

of the lowest. The lowest in Germany, I am assured by intelligent German wine merchants, ranges from 74 to 80 degrees. Ours, this year, ranges from 80 to 97. During the fermentation of their must, the flavor of the grape is usually lost. Our Catawba wine retains its muscadine flavor and aroma, even when fermented, till it is as dry as the hock wines. This quality will give sparkling wine from it, an aroma and flavor entitling it to a preference over the champagne of France. Some vineyards escaped the rot entirely, and as much as 2,500 gallons have been made at some vineyards owned by poor Germans. N. LONGWORTH.

Cincinnati, Oct. 5th, 1848.

AGRICULTURAL BOTANY.—No. 2.

AGREEABLY to my promise in the October number, I now proceed to make a few extracts from the "Observations" in Dr. Darlington's excellent work on Agricultural Botany.

Maize, or Indian Corn.—Indian corn is one of the most interesting of the gramineæ, or grass family, rivalling the sugar cane and the rice in intrinsic value, and, in the more favorable districts, ranking next in importance to wheat itself. The fresh bread made of Indian corn meal (the "pone" of Maryland and Virginia), *when rightly prepared* for the breakfast table, may challenge a comparison with that made from any other grain. Sugar has also been obtained from this plant, of an excellent quality, and in considerable quantity; but whether the saccharine product will warrant the culture of the plant for that object, remains to be determined. In Chester county, Pa., the Indian corn is usually the *first* in the routine of crops, on breaking up the lay, or sod. Oats, or barley next succeed, and then wheat, with clover and Timothy to constitute the meadow, or hay crop, for two or three years after the wheat comes off.

Kentucky Blue Grass.—This species (supposed to be a naturalized foreigner), varies considerably, in size and appearance, when growing in different soils and situations. In our best soils, the radical leaves are very long and luxuriant,—when it is known by the name of "green grass." In Kentucky, it is commonly called "blue grass," a name which properly belongs to the species *Poa compressa*.

It is the profusion of the nutritious radical leaves, which constitutes the chief excellence of this grass. It is, indeed, as Muhlenberg terms it, "*optimum pabulum*," being decidedly the most valuable of all the grasses known in our pastures. It has not been found necessary, in Pennsylvania (of later years, at least), to cultivate it, by sowing the seed; for when the land is duly prepared by lime and manure, it soon takes possession of the soil or *comes in*, as the farmers term it, and supersedes the artificial grasses. The prevalence, therefore, and luxuriant growth of this grass, is one of the best evidences of the land being in good condition, and well managed. In very poor land, it deteriorates so much that it would scarcely be recognized as the same plant. The slender culms, of this species, afford an excellent material for the manufacture of the finer kinds of Leghorn hats.

Spearmint.—This pleasantly aromatic herb has been so generally introduced into all the older settlements of this country, that it is now very extensively naturalized. It is deservedly popular as a domestic medicine, in relieving nausea, &c., and it is the species employed in preparing that most seductive beverage, known as the "mint julep" of Old Virginia.

Lobelia, or Indian Tobacco.—This is an acrid plant, possessing emetic, cathartic, and narcotic properties; and is somewhat notorious for the use made of it by a tribe of reckless modern empirics. It is frequent in our pastures, in the latter part of summer, and has been suspected of causing the ptyalism, or slabbering of horses, so often observable at that season. I cannot, however, help doubting the correctness of the opinion; for the horse is a dainty animal in the selection of his food. I have often remarked the care and dexterity with which he separates the palatable herbage from that which is not so; and have never seen him eat, nor even crop, so acrid and offensive a weed as this lobelia. We have two species, in Pennsylvania, which are admired for the beauty of their blue and red flowers, particularly the crimson, cardinal flower (*L. cardinalis, L.*), but they are not intrusive on the farm.

Tobacco.—The extent to which this nauseous and powerfully-narcotic plant is cultivated, its commercial importance, and the modes in which it is employed to gratify the senses, constitute, altogether, one of the most remarkable traits in the history of civilized man. Were we not so practically familiar with the business, we should, doubtless, be disposed to regard the whole story of the tobacco trade, and the uses made of the herb, as an absurd and extravagant fable. In view of the facts and circumstances, it does seem like sheer affectation, on our part, to pretend to be astonished at the indulgence of the Chinese, and other Asiatics, in the use of opium. The habitual use of tobacco is always more or less injurious to the system—especially the nervous system; and in many instances it is highly deleterious. I speak from long observation, and a personal experience of many years; having smoked and chewed the herb until its pernicious effects compelled me to *es-chew* it altogether.

Black Birch.—The timber of the birches is not particularly valuable, though some of them afford tolerable specimens of lumber, as well as good fuel. The virgate branches were famous instruments in the hands of pedagogues of the olden time in promoting good order, and a close attention to study, among the rising generation.

> ——————"afflictive *birch*,
> Cursed by unletter'd idle youth."

But "the march of mind," in the present day, has rendered such auxiliaries nearly obsolete! The flexible twigs of this species, instead of being used to stimulate idle boys to learn their lessons, are chiefly employed for making coarse brooms to sweep streets and courtyards, in our cities.

The Common Plantain.—This foreigner is very generally naturalized; and is remarkable for accompanying civilized man, growing along his footpaths, and flourishing around his settlements. It is said our aborigines call it the "*white man's foot*," from this circumstance. Perhaps the generic name (plantago), may be expressive of a similar idea; viz., *planta*, the sole of the foot, and *ago*, to

act, or exercise. It is rather a worthless weed, but it is not much inclined to spread, or be troublesome, on farm lands. The leaves are a convenient and popular dressing for blisters, and other sores; a fact which seems to have been known in the time of Shakspeare; as we may learn from his Romeo and Juliet,

> "*Rom.* Your *plantain leaf* is excellent for that.
> "*Ben.* For what, I pray thee?
> "*Rom.* For your *broken shin.*"

The plantain leaf continued in vogue, for that purpose, until a substitute was furnished by modern experimenters, in their empirical attempts to regulate the national currency!

That this interesting volume of Dr. Darlington was not written for profit, but for the love of his favorite science, and the benefit of those to whom he dedicated it, we learn from a *note* to a discourse upon agriculture, delivered a short time after its publication, in which he casually mentions his "Farmers' Flora," as he chooses to call it, and then says: "I beg leave to add that I have not the slightest personal or pecuniary interest in the work, for I made a present of the manuscript to the first printer I found, who had the courage to risk the publication." A FRIEND TO FARMERS.

October, 1848.

CULTIVATION OF THE STRAWBERRY.

THE result of the following experiment, the first of the kind in that section of the country, was given at the request of the editor of the N. Y. Farmer and Mechanic, by Mr. C. H. Starr, of Groton, Connecticut, who has been engaged some four years in his experiments, and has succeeded in producing some strawberries of unsurpassable fineness.

The varieties raised, were Hovey's seedlings, with a few English plants as fructifiers, and were set in April, in rows three feet apart.

The soil was a moist loam, half an acre in extent, well pulverized by plowing, and manured at the rate of 20 cords to an acre, of sea weed and fish. The first year, beets, or other vegetables might be grown without detriment to the fruit.

The product from the half acre under cultivation, last season, was 2,000 quarts of fruit, some of which measured 4½ inches in circumference.

ESTIMATED EXPENSE OF CULTURE PER ACRE.

20 cords of manure or its equivalent, .	$40
Expense of plants, $10,000 at $2 . .	20
Total expense of labor the first season .	100
Total expense incurred the first year .	$160
Total expense (labor only), second year .	160
" " third year .	160
" " fourth year .	160
	$640

VALUE OF THE CROP.

50 bushels of beets the first year . .	$20
4,000 quarts of strawberries the second year,	
4,000 " " third year,	
4,000 " " fourth year,	
12,000 quarts of strawberries in all, at 12 cts.	1,440
Total value of the crop for four years,	$1,460
Leaving a net gain for four years of .	820
Or for each year, ...	$205

The above is simply what has been done in the ordinary culture, without any particular effort or extra exertion, and we have no doubt the crop could be still further increased by improving the variety, and with a better opportunity of selecting the soil and varying somewhat the kind of manure.

PLANTING TREES.—Trees should be transplanted in the autumn. The reason is this: Nature never does two opposite things at the same time; thus, when she is busied about the roots of a tree, she neglects the stem, and reversely. Since, therefore, in the autumn, she is employed on the roots, and, in the spring, on the stem, it is evident that autumn is the best time for transferring the roots from one place to another, just after the fall of the leaf. If, however, the soil to which a tree is to be transplanted is wet, early spring, just before the buds begin to swell, is the best time for transplanting—*Geoponica*.

TWO-HORSE WAGONS.

TWO-HORSE WAGON.—FIG. 95.

THESE are constructed with light, broad bodies, and will carry, on a good road, from two tons to two tons and a half of grain, or salt in bags, and will load well with hay or straw. The bodies are mounted on patent iron axles, and eliptical steel springs. They are designed for working two horses together in pairs, for market and farm use, and may be driven with ease, when loaded, at a speed of four or five miles per hour. Prices, $75 to $125 complete.

DECAY OF TIMBER.—The durability of the oak is proverbial; yet how many instances are there on record of ship's timbers having been found rotten, or unsound, so as to require replacement, even before the vessel could be launched. Other oaken timbers, of the same size, similarly situated, have served at sea for more than half a century; then been sold as old ship timber, and set up as land posts, where they still remain almost as hard as bone.

Ladies' Department.

TREATMENT OF ROSE BUSHES.

Rose bushes require a very rich earth, and the gardeners of Europe direct them to be removed, or the soil about their roots changed once in every three or four years. Experience in this country proves that we may have ever-blooming roses in perfection, without this trouble, as it is only necessary to renew the exhausted fertility of the soil, which can readily be done by using the following liquid manure:—

Into a common-sized barrel, put about half a bushel of cow manure (not fresh), and fill it to the top with water; stir well, and let it stand twenty-four hours; then take equal parts of this liquid and clear water, and pour it around, and over, but not on the roots of the rose bushes. When the barrel is empty, fill it again with water, which may be used without diluting. Do this regularly once in three or four weeks, taking care, when possible, to apply it just before, or during a rain, in order that it may sink still more diluted, directly to the roots, or it will form a crust on the surface and injure them.

Soap suds is also a mild and excellent fertilizer to apply to delicate plants, but is apt to be unsightly by the white crust it makes on the surface, unless the earth is stirred with a trowel, to let it sink into the soil.

Both of the above are valuable in the vegetable garden; also, for cabbage and egg plants, artichokes, &c. E. S.

Eutawah.

AN ATTEMPT AT HOUSEKEEPING.

Old Lady's Diary.—I have just returned from my long-promised visit to my old friend M***, whose plain good sense, shown in every department of life, has often surprised and delighted me. I was, therefore, unprepared to find her daughters, who had no pains spared in their education, so deficient in that important branch, housekeeping. Her eldest, a lovely girl, who, while living under her mother's roof, delighted every one with her sprightly temper and amiable deportment, as well as by the cultivation of her mind, has married, and settled on a farm. Her first letter arrived to-day, containing so much instruction for my young people, that I have obtained leave to copy it, which reads as follows:—

I have no words to express to you, my dear mother, how I miss you all day long. You are the earliest thought at my waking, my last at night. I miss your cheerful call at the morning's dawn, and so often oversleep the hour, and then the house arrangements go wrong all the rest of the day.

The first week after our arrival, was spent in unpacking the furniture and arranging the house. So you suppose that no one was very particular about the luxuries of the table. We ate what we could get with the least trouble, and solaced ourselves with laughing over all our difficulties and discomforts, which, by the by, were greatly increased for want of a little of your forethought; for instance, I now remember that you would not have unpacked the furniture and china, before the rooms and closets were ready to receive them in their proper places, and so have saved much unnecessary lifting and disorder. But, notwithstanding all this, I do flatter myself that all your good instructions and examples have not been thrown away. Although my house is arranged in a manner that would please even your critical eye, there is one thing however in which I am doubtful, I have my storeroom up stairs; but as my women are not so thoughtful as they might be, I fear I shall find it inconvenient to mount so high for everything that is called for. Indeed, I already long for the dear old storeroom at home, so near the kitchen that it is no trouble to get to it. I now begin to realize what you have so often told me, that I must give personal attention to all the different departments throughout the house, be they agreeable or not. You know that I never liked cooking and that your indulgent love always spared me from the disagreeable task; but sorely do I now grieve that you did not enforce your advice, and oblige me to perform the disagreeable, though necessary duty. Poor Charles never even looks a reproach, but appears to be amused at all my difficulties, turning them into ridicule, and saying, with a comic shake of the head, "What would your mother say to our cooking? No matter, we will do better in time." Dear Charles, I wonder what he has to do with my mistakes, or our uncomfortable dinners; for sure I am that the provisions are all that could be desired. Would that I could say as much for the cooking.

A few days ago, some of my neighbors hearing that I was now settled in my new home, came to welcome me in the neighborhood, as they call it; though they live so far off, it was impossible for them to return before dinner. I was delighted to see them, and Charles came out of the field to do all in his power to assist me to entertain them. The best ham was selected, and we were fortunate in being able to procure fresh beef from the next farm. Our garden has succeeded admirably under Charles' good care. So we had plenty of vegetables. I was aware that Jane knew but little of cooking, but she professed to be quite equal to the dinner I had provided, and I made myself easy as to the result. My new friends are agreeable, pleasant people, and I soon forgot, in their delightful society, that I was a housekeeper, and that all the responsibility of the dinner really rested on me. Dinner hour arrived, but not so dinner. I wondered, and Charles looked, but we said nothing, hoping that all was right, and that it would soon appear. An hour passed, and I began to be uneasy, and then visited the kitchen. A thousand excuses were made, with many assurances that all was doing well, and we would not have long to wait; I returned to the parlor. Charles was uneasy, as he had business in the field, but it could not be helped. Another hour passed, and another. What could be the matter? Again I visited the kitchen; all was in confusion; the beef was not half done, the potatoes had all boiled to peices, and the beans were sailing in a large pot of water in the chimney corner, some distance from the fire. I saw then, what I should have known before, that my personal attention was necessary where there was so

ignorant a cook, and, alas! I felt I was little better; but I began to arrange matters as I best could. The ham was the first to be dished. Imagine my consternation on looking into the pot, where I found it had boiled to fragments. It had been put on to simmer, according to your directions, early in the morning, and had been boiling all day. How shall we get it out of the pot?" asked Jane. "Strain it through a colander," said a saucy boy, who stood enjoying our perplexity. It was a good hint, however, and we followed his advice, both with the ham and beans, which otherwise eluded our ladles when we attempted to catch them, as if they had been things of life.

At length, all was safely landed on the table, much to the amusement of our guests, who, good-naturedly, laughed *with*, not *at* us, and relieved my embarrassment by relating their first experience in housekeeping. I had attended to the desert myself, and it was really good—all but an unfortunate apple island, that looked much more like a solid continent than I could have desired; but thanks to the long delay, we were too hungry to be over particular, and the dinner passed off right merrily. So, dear mother, do pray join in the laugh, and don't look so sad; don't shake your head so reproachfully, as if you were going to say, "Ah! Fanny, Fanny, I thought this would be the way." Do, dear mother, look up and give me one of your bright smiles, and I will promise to give a better account of my next. FANNY.

HOW TO TAKE OIL FROM PAPER.—Rub gently, and press with blotting paper till all the oil on the surface is removed; then cover the spots with powdered magnesia, French chalk, or any other white absorbent—such as Wilmington clay, "grease balls," &c. Put soft paper over this, and turn the other side of the oil spot up, and cover that in like manner; lay it under a light press for a few hours, and then scrape off the chalk, which will be saturated with oil; and repeat the process until it has all been absorbed; then rub it gently with a cambric handkerchief so as to remove the dust and stain. Three or four applications will generally be found sufficient.

Boys' Department.

ANECDOTES OF ANIMALS.—No. 4.

Animal Instinct.—The following curious instance of sagacity in a field mouse occurred on a farm near my residence, and displays so much of what, in man, would be called reason, that to me it seems unfair to deny to animals so acting, a measure of that noble attribute; if, by reason, as distinguished from instinct, we mean the power of deducing consequences from premises. Instinct teaches one mouse to make her nest, and find her food, as all other mice have done, since their habits were noticed by reasoning man; but perhaps no other mouse ever did, nor ever will, follow the dictates of reason in avoiding danger as this one did.

Late last summer, a young man, while engaged in removing a log in the woods, observed a field mouse in her nest, which seemed to be asleep. Surprised at seeing her remain so quiet when so roughly disturbed, he stopped to look more closely, when she started away much frightened and ran up a neighboring oak tree. On examining the nest, he found five half-grown young ones. Supposing the mother would return to take care of them, if left unmolested, and feeling sorry for her fright, he went to work in another part of the wood, and remained at a distance for a considerable time. When he came to the place again, he gave another look at the nest, and finding but three little ones, he supposed that he had counted wrong at first. On resuming his work, he saw the mother descend a majestic chestnut not far from the oak he had seen her ascend, and go towards her nest. This excited his curiosity, and he sat down on a log not far from the spot, to watch her motions. She went to her nest, took a young one in her mouth as a cat does a kitten, and ran up the oak to about half its height, crept cautiously and slowly to the end of one of the largest branches, from whence she gained the chestnut, where the boughs interlaced each other. The latter tree, which was about sixty feet high, she winded up till she came near the top, and disappeared in a deserted crow's nest. Presently she came down, took up another young one, and repeated this perilous and laborious journey until she had deposited the whole five safely in this strangely-selected, aerial habitation, where neither man nor beast would be likely to disturb them.

Eutawah. E. S.

SAGACIOUS HORSE.

A FARMER whose sayings and doings I have often quoted, though I dare not give his name, had some years ago, an old horse, known by the name of "Yellow Ned," being past work, was turned out to enjoy the remainder of his useful life, in the best pastures, as his master very justly thought some reward was due for his long and faithful services. He was a pet with all the children of the household, and so docile, that the most timid child used to trot about on his back without saddle or bridle. Among other odd fancies, he was extravagantly fond of apples; and besides shaking the small trees, he would adopt various expedients to obtain them.

Among others, the following was of frequent occurrence:—The children often plucked apples for him, as they rode through the orchard, which no doubt first put the thought into his head; but whether so or not, the fact is the same. He would come to the horse block, and whinny; if not noticed, he would put his head over the fence, and express great impatience. The children loved to indulge their old favorite, so one, or sometimes two of them would climb upon his back, when he would pace off to the nearest apple tree whose fruit he could not reach, and wait while they gathered for him as many as he chose to eat. Once, when two were on his back, they attempted to cheat him, by eating the fruit, and filling the boy's pockets, and the little girl's apron. He waited at first, as if to know what it meant; then walked quietly to a stream that run through the corner of the field, stopped in the deepest place, stooped to drink as usual, and then gently lay down with his little burden in the water. The children shouted with laughter, and gave him their ill-gotten treasure; and never tried to cheat "Yellow Ned" again. E. S.

AGRICULTURAL CHEMISTRY.—No. 8.

I WILL here repeat the names of those elements belonging to the soil, with which I promised to acquaint you in this letter. They are potassium, sodium, magnesium, calcium, chlorine, iodine, bromine, manganese, phosphorus, and silicon. You recollect I told you that there are but sixteen elements that enter into the composition of vegetables; with the remaining six, viz. oxygen, hydrogen, nitrogen, carbon, iron, and sulphur, you are already familiar.

Potassium is a metallic substance, of a white and brilliant appearance, but soft as wax, and lighter than water. When exposed to the air, it attracts oxygen very rapidly, and this union of potassium and oxygen forms the well known alkali, potash. When a piece of potassium is thrown on water, it attracts the oxygen of the water with such rapidity as to become ignited, and burns with a white flame while swimming on its surface. Potassium and oxygen combine in two proportions; the one containing the lesser portion of oxygen is called the *protoxide*, the other the *peroxide* of potassium. The prefix, *pro*, to any of the oxides, denotes the lowest proportion of oxygen, or degree of oxidation, and *per*, the highest which they contain. Potash is an important ingredient in the potato vine, grape vine, corn stalk, and most other trees and plants.

Sodium is another metallic substance, uniting readily with oxygen, and forming the alkali called soda. These two alkalies (potash and soda), are found in almost every vegetable, and their presence is consequently necessary to the fertility of every soil. Sodium also unites with oxygen in two proportions, forming a protoxide and peroxide of sodium. The protoxide is the soda of commerce, and this, combined with muriatic acid, forms our common table salt, the chemical names for which are muriate, or hydrochlorate of soda.

Magnesium is a white metal, and bright like silver. It also unites readily with oxygen, and the protoxide forms the magnesia of commerce. This also possesses slight alkaline properties, and unites with some of the acids, forming various saline compounds. Epsom salts is a combination of magnesia with sulphuric acid, and its chemical name is therefore sulphate of magnesia.

Calcium is a brilliant white metal, which, when united with oxygen, produces lime; quicklime is, therefore, an oxide of calcium. Lime is a very important agent in every soil, and I will speak of it more particularly hereafter. It possesses a strong affinity for carbonic acid, which it absorbs from the atmosphere, forming a carbonate of lime. Chalk and marble are both composed of lime and carbonic acid. In its pure state, lime combines readily with nearly every acid, forming a multitude of salts. Combined with sulphuric acid, it forms gypsum, or plaster of Paris, the chemical name for which is sulphate of lime.

Chlorine is a green-colored and poisonous gas, and is never found in nature except in combination. United with hydrogen, it forms muriatic acid; combined with mercury in one proportion, it forms calomel; another proportion of chlorine changes the calomel to corrosive sublimate, or bichloride of mercury, a most deadly poison. The combinations of chlorine with the metals are called chlorides.

Iodine is of a black color, and when uncombined is in the form of small, shining scales, which are changed by a high degree of heat into a beautiful violet vapor. Its combination with metals are called iodides.

Bromine is a fluid, possessing an offensive odor, and having properties similar to iodine. It has been considerably used of late years in the process of taking Daguerreotype likenesses. Chlorine, iodine, and bromine, are only found in such plants as grow along the sea shore, or in salt marshes, and are consequently of little importance to the agricultural chemist.

Manganese is a black mineral, always found in nature in connexion with iron, and having properties similar to those of iron. It unites with oxygen in two proportions, and its protoxide forms a number of salts, some of which are occasionally found in the ashes of plants, and are supposed to answer as a substitute for iron.

Phosphorus is a light, inflammable solid, colorless when perfectly pure, and insoluble in water. It is an important constituent in bones, from which it is obtained for various uses in the arts. As its presence is always necessary for the production of seeds, it is an essential ingredient in all our cultivated plants. It combines with oxygen, forming phosphoric acid, and this, combined with metallic bases, forms a large group of salts called phosphates.

Silicon is a substance resembling charcoal, and but little known in its pure state. It is the base of silicic acid, called also silica and silex; this is pure sand, though possessing chemical properties which give it a place among the acids. Its compounds with soda, potash, &c., are called silicates. The presence of rushes indicates an abundance of silica in the soil where they grow. It is a very important agent in the production of some or our most common plants.

You may be curious to know how iron, and some of the other minerals which I have described, can ever enter into, and become a part of any vegetable. Although this is not the place for showing how plants obtain their food from the soil, yet I may as well here inform you that these solid substances usually combine with certain acids which are present, and from salts, which are either dissolved by water, or some other agent, and then imbibed by the roots of the plant in the same manner as water itself. When the ashes of any vegetable are analysed, some of these metals are always found in the form of salts.

J. McKINSTRY.

Greenport, Columbia Co.,
Nov. 1st, 1848.

FACTS IN FARMING.—The more dung, the heavier green crops; the more green crops, the more cattle food; the more cattle, the more dung. Hence, by keeping an abundance of cattle, a farm can be improved from year to year.

COMPARISON OF MANURES.—The manure of a horse may nearly equal that of a cow, setting quality against quality; and that made by two or three pigs may be equal in value to that of an ox.

FOREIGN AGRICULTURAL NEWS.

By the Steamer Acadia we are in receipt of our foreign journals to November 4th.

MARKETS.—*Ashes*, in fair request. *Cotton*, an advance of ⅛*d.* to ¼*d.* per lb. *Grain and Flour*, a trifle lower. *Provisions* the same.

American Provisions for the English Market.—We copy from our European correspondent the following excellent observations on the method of putting up beef and pork for the English Market:—

Beef.—The quality of the best brands of American beef are much approved of. The desirable points being to have the color a bright pink, the pickle clear, with a good capping of Turks Island or other coarse salt; the coarse pieces, necks, shanks, &c., as scarce, and the meat as fat as possible; in addition to all these, the weight (marked on the cask), correctly put into every tierce.

Pork.—A really good article of "prime mess pork" cut into four pound pieces from hogs not exceeding 180 to 200 lbs., cured only in pickle, to be of a bright pink color, packed with clean clear pickle, and with a good capping of coarse salt, will always find a ready sale. Mess pork, or stripes, is a waste of material that should be put into bacon. Prime pork the same to a less extent. The heads, or jowls, will sell here when alone for as much money as the prime pork.

The Best Breed of Sheep.—Let it be assumed that the best breed of sheep is that which produces the greatest net profit in money from a given quantity of food.—*Agricultural Gazette.*

Winter Management of Calves.—Let them have plenty of good hay and roots, with chopped straw and linseed, a quarter of a pint to a quart of water, put into a jar, or saucepan, and placed on the hearth on hot ashes; in the morning it will be done but not burnt. Should calves scour during the year, I give in balls one table spoonful of Epsom salts, two of flour, and two of whitening, or chalk.—*Anon.*

Bull Fight.—At Ashton Keynes, a two-year-old stock bull and a fat bull stag, furiously attacked each other, and fought until the latter dropped dead, covered with wounds. It was with the greatest difficulty that the victor was removed from the dead body of his fallen foe. The latter weighed 300 lbs. per quarter.

Lime a Means of Preventing Plant Wounds from Bleeding.—This year, I saved some fine pelargoniums from bleeding to death, after being cut down, by dusting slacked lime over the wound. It might have the effect of preserving other plants under similar circumstances.—*Gardeners' Chronicle.*

Influence of Night Temperature on Plants.—Every gardener who pretends to an acquaintance with his profession is now aware of the prejudicial effect of *high night temperature.* We have repeatedly pressed the subject on his attention; we have shown that in countries, called hot, the thermometer often falls low during the night, and that, to the vine in particular, night cold is indispensable and always provided by nature where grapes are finest. The well-known formation of ice near Calcutta, although brought about by slightly artificial means, is in itself a beacon to guide the gardener who reflects. In short, the kind of periodical rest which a low nocturnal temperature secures to plants is undoubtedly as necessary to them as sleep to animals; it may be broken for a short time with impunity, but it must be provided eventually, and the greater the regularity of it the better the health of the individual.—*English Paper.*

Advice in Poultry Keeping.—The principles upon which I rely for success in keeping hens, are 1, to have two breeds—a few to hatch and rear the chickens, and twice the number of everlasting layers, as eggs are more profitable than chickens; 2, to get a hatch as early as possible in spring, and to keep them well; these never cast their feathers like the old birds, and if they begin to lay in autumn, lay more or less all winter; 3, never to keep old fowls (none but favorite fowls ought to be kept more than two years); old birds lay larger eggs than pullets, but not nearly so many; 4, to give them the best barley I could get, and as much as they could pick up once a day, in summer and twice in winter; they are not only more profitable, well kept, but the eggs are better. The two breeds I like best are the spotted Dorkings for sitting, and the pheasant breed for laying.—*Agricultural Gazette.*

Prize Gooseberries.—The following are the names and weight of four of each color of the gooseberries standing highest on the prize lists of the Gooseberry Shows held at Lancashire, Cheshire, and other parts of the United Kingdom, in the year 1848:—

Red.	Weight of Heaviest Berry
London	31 dwts. 19 grs.
Companion	28 " 3 "
Wonderful	30 " 18 "
Lion	25 " 4 "
Yellow.	
Catherina	30 " 15 "
Lender	24 " 20 "
Drill	25 " 12 "
Pilot	25 " 0 "
Green.	
Thumper	30 " 9 "
Peacock	24 " 15 "
Turnout	23 " 19 "
Overall	24 " 0 "
White.	
Freedom	28 " 1 "
Eagle	22 " 19 "
Lady Leicester	24 " 13 "
Tally Ho	22 " 21 "

Important Enterprise in the Island of Cuba.—The "Junta Fomento," or Board of Agriculture and Improvements of the island of Cuba, have recently made considerable purchases of such articles and stock, as are calculated to improve and render more profitable, the agricultural interests of that valuable territory. The purchases have been made in this country by their highly intelligent and accomplished commissioner, Señor Don José Maria de la Torre. The animals consist of several cattle of the Short-Horn, Devon, and Hereford breeds; Cotswold and Southdown sheep; swine of four different breeds; and poultry of various kinds. Among other articles introduced, are several implements and machines of the latest improvement, and a choice variety of seeds for field and horticultural purposes. This enterprise, if properly carried out, must have the happiest effect in developing the resources of the island, and in advancing the interests of all parties concerned.

Insects in Wheat.—The mode of dressing seed wheat, practised by hundreds of farmers in the neighborhood of Ipswich, Eng., is to wet the seed by various modes and *dust arsenic on the dry heap*, out of the paper it is done up with by the chemist, whilst another turns the heap over. A half bushel of lime is first emptied into a half-hogshead tub a week or two before seed time, to which is added the drainings from the cattle yards, sufficient to cover the wheat when dipped; the wheat is then stirred in a basket, or skep, skimmed and turned on the floor. When the seed is wetted, it is dusted with dry powdered arsenic, which is sprinkled on and mixed with the wheat. It is then swept and rounded up into a heap and left over night. The liquor in the tub, is about as thick as bricklayer's lime wash for walls.

A quarter of a pound of arsenic is sufficient for dressing four bushels of wheat, which costs less than a cent per bushel. The spent lime is worth its cost as manure. It may be thought that the skep should be sunk in the liquor, and the wheat slowly poured in, to cause the light grains to float; but an extra stirring will rectify this. If two persons are employed, of course one may sink the skep, and dust on the arsenic on every skepful shot on the floor, whilst the other stirs and skims the wheat.

Editor's Table.

REMOVAL.—Our readers are informed that the office of publication of the *American Agriculturist* is removed to 121 Fulton street, New York, where a large and complete assortment of agricultural publications may be found, which will be sold at the lowest cash prices, by C. M. Saxton.

GOLD MEDAL.—A. B. Allen & Co., of 189 and 191 Water street, New York, were awarded a gold medal for exhibiting the best and greatest variety of Agricultural Implements, at the late annual fair of the American Institute.

DEATH OF T. B. WAKEMAN.—It is with much regret we announce the decease of Thaddeus B. Wakeman, Esq. He died at his residence, in this city, on the 7th inst., after a protracted illness of several months. Mr. W. was a native of Connecticut, but for a large part of his life, has resided in New York. He has been connected with the American Institute since its commencement, twenty-one years, during all of which time, he has held the responsible office of Corresponding Secretary. The success of this institution under the many discouragements it has had to encounter, is his best and a sufficient eulogy.

SCIENTIFIC AGRICULTURE; or the Elements of Chemistry, Geology, Botany, and Meteorology, &c., by M. M. Rodgers, M.D. Illustrated by Engravings. Rochester: Erastus Darrow. 12mo. pp. 279. In hastily looking over this little work we have been rather favorably impressed; and were not the country already flooded with similar publications, we should hope the author would be rewarded for his pains.

THE BREEDS, MANAGEMENT, STRUCTURE, AND DISEASES OF SHEEP, with Illustrative Engravings, by H. J. Canfield. Salem, Ohio: Aaron Hinchman, 12mo. pp. 580. This is a very good compilation of the subject treated on, made from various authors, some of which are duly credited, others not. Among others largely drawn from, we notice much from our own pages, transferred without comment or quotation marks of any kind whatever. Although we conceive this adds to, rather than detracts from, the merits of the work, we are not at liberty to draw the same inference as to the merits of the author, who was bound by all fairness and honorable dealing to have given us due credit for his ample extracts.

BEST KINDS OF STRAWBERRIES FOR CULTIVATION.—An experienced fruit grower writes us that after trying thirty of the best and most popular modern varieties of strawberries, he has come to the conclusion that but *four* varieties are worth cultivating on the light sandy lands of Monmouth county, New Jersey. These are Hovey's seedling, the Boston pine, large early scarlet, and the crimson cone, or Scotch pine.

WINE IN OHIO.—The amount of wine already made this year in the neighborhood of Herman, is about 6,000 gallons. It is worth on an average $1.25 per gallon.

MAMMOTH PUMPKIN.—We were shown yesterday a pumpkin grown by Mr. Jas. Smith, of Harrison county, Indiana, that weighed 171 pounds, and is upwards of six feet in circumference.—*Lou. Cour.*

TWO CROPS OF RASPBERRIES THE SAME YEAR.—Mr. Wm. E. Lyman, picked upward of half a pint of raspberries from his garden in this city, the past week, being the second crop of this year's growth. The berries were of fine size and flavor.—*Buffalo Commercial.*

INTRODUCTION OF THE TEA PLANT INTO THE UNITED STATES.—It will be gratifying for our readers to learn that several cases of black and green-tea plants, of Chinese stock, have just arrived from London, in the ship American Eagle, selected and imported by Dr. Junius Smith, of this city. The packages contain some 500 plants of from five to seven years' growth, and are designed for the formation of plantations in the mountainous parts of Georgia and the Carolinas.

We also understand that a small quantity of tea seed was lately brought to this country by Dr. S., in the steamer Britannia, which he received in London, overland, from the northwest provinces of India, for the purpose of sowing on plantations at the south. More plants and seed are expected from India and China, this season, and if we may judge from the progress already made, we have now the means in hand of extending tea plantations throughout such sections of our country as may be found adapted to its culture.

SERIOUS LOSS BY FIRE.—We regret to notice the destruction by fire, on October 29th, of the office, papers, stereotype plates, and several thousand volumes of the Cultivator in Albany. This is a loss of no little magnitude, and one that can hardly be estimated by dollars and cents. We sincerely trust, so far as repairable by the latter, the publisher's loss may be amply made up by an increased list of paying subscribers.

The agricultural implement warehouse of Mr. Emery, in the same building, was also destroyed, with several thousand dollars' worth of tools. The sympathies of the public, and the energies of both the above parties, will soon, we hope, reinstate them in their former prosperous career.

ANALYSIS OF THE COTTON PLANT AND SEED, with Suggestions as to Manures, &c., by Thomas J. Summer, Columbia, S. C.: Allen, M'Carter & Co. This work consists of a small pamphlet of some 16 pages, giving the modus operandi and results of the author in his analyses of the cotton plant and seed, the per centage of the constituents of which are as follows:—

100 parts of the ash of the cotton plant gave

Silicic acid,	6.50
Sand and coal,	10.04
Oxide of iron,	8.20
Oxide of lime,	17.66
Oxide of magnesia,	5.33
Sulphuric acid,	1.31
Phosphoric acid,	13.37
Potassa,	22.01
Soda,	0.99
Chloride of sodium,	0.05
Carbonic acid,	15.72
	101.19

100 parts of the ash of cotton seed gave

Phosphoric acid,	35.43
Oxide of iron,	3.43
Coal,	1.05
Sulphuric acid,	3.19
Oxide of lime,	10.88
Oxide of magnesia,	10.61
Potassa,	27.82
Soda,	2.75
Silicic acid,	trace.
Loss and chlorine,	4.84
	100.00

TO MAKE FROG SOUP.—Wash the thighs and backs of fifty frogs; put them into a pot with water enough for soup, together with carrots, leeks, turnips, parsnips, a little celery, a burnt onion, and a good piece of butter; let them boil gently for four or five hours and serve them as *bouillion gras.*

Voulez vous de frog soup?
Mercie, Monsieur, j'ai beau coup.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, NOVEMBER 22, 1848.

ASHES, Pots,	per 100 lbs.	$5 87	to	$6 00
Pearls,	do.	6 12	"	6 19
BALE ROPE,	lb.	6	"	8
BARK, Quercitron,	ton,	26 00	"	28 00
BEANS, White,	bush.	75	"	1 25
BEESWAX, Am. Yellow,	lb.	19	"	22
BOLT ROPE,	do.	11	"	12½
BONES, ground,	bush.	45	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	25
Shipping,	do.	9	"	15
CANDLES, Mould, Tallow,	do.	11	"	13
Sperm,	do.	25	"	38
Stearic,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2,000 lbs.	4 50	"	5 50
CORDAGE, American,	lb.	10	"	12
COTTON,	do.	5	"	9
COTTON BAGGING, Amer. hemp,	yard.	15	"	16
FEATHERS,	lb.	30	"	40
FLAX, American,	do.	8	"	9
FLOUR, Northern, Southern and West'rn	bbl.	5 25	"	5 87
Fancy,	do.	6 00	"	6 50
Richmond City Mills,	do.	7 00	"	7 25
Buckwheat,	do.	—	"	—
Rye,	do.	3 12	"	4 25
GRAIN—Wheat, Western,	bush.	1 10	"	1 31
Red and Mixed,	do.	95	"	1 10
Rye,	do.	65	"	67
Corn, Northern,	do.	65	"	74
Southern,	do.	65	"	70
Barley,	do.	62	"	65
Oats,	do.	27	"	35
GUANO, Peruvian,	2,000 lbs.	50 00	"	50 00
" Patagonian	do	35 00	"	40 00
HAY, in bales,	do.	45	"	50
HEMP, Russia, clean,	ton.	195 00	"	200 00
American, water-rotted,	do.	160 00	"	220 00
American, dew-rotted,	do.	140 00	"	200 00
HIDES, Dry Southern,	do.	6	"	7
HOPS,	lb.	4	"	12
HORNS,	100.	2 00	"	10 00
LEAD, pig,	do.	4 06	"	4 12
Pipes for Pumps, &c	lb.	5	"	7
MEAL, Corn,	bbl.	3 12	"	3 38
Corn,	hhd.	12 50	"	13 00
MOLASSES, New Orleans,	gal.	23	"	28
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	2 00	"	2 25
Pitch,	do	1 25	"	1 75
Rosin,	do.	1 19	"	1 25
Turpentine,	do.	2 50	"	3 00
Spirits Turpentine, Southern,	gal.	34	"	35
OIL, Linseed, American,	do.	51	"	53
Castor,	do.	1 25	"	1 50
Lard,	do.	65	"	70
OIL CAKE,	100 lbs.	1 00	"	1 15
PEAS, Field,	bush.	75	"	1 25
Black eyed, 2 do	do	1 25	"	1 50
PLASTER OF PARIS,	ton.	2 25	"	3 00
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	9 00	"	13 50
Prime,	do.	5 00	"	7 50
Smoked	lb.	6	"	12
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	9 75	"	13 00
Prime,	do.	7 00	"	10 00
Lard,	lb.	8	"	9½
Bacon sides, Smoked,	do.	3	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	5	"	9
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	5
Pickled,	do.	3	"	4
RICE,	100 lbs.	3 00	"	4 00
SALT,	sack,	1 25	"	1 45
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	5	"	7
Timothy,	bush.	2 00	"	3 50
Flax, clean,	do.	1 30	"	1 40
rough,	do.	1 20	"	1 22
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	—
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	4	"	6
SUMAC, American,	ton,	35 00	"	37 00
TALLOW,	lb.	8	"	9
TOBACCO,	do.	2½	"	7
WHISKEY, American,	gal.	23	"	25
WOOLS, Saxony,	lb.	35	"	60
Merino,	do.	25	"	35
Half blood	do.	20	"	25
Common do		18	"	20

NEW YORK RETAIL PROVISION MARKET.

Meats.—Beef, from 6 to 14 cents per lb.; Veal, 7 to 12 cents; Lamb, 5 to 9 cents; Mutton, 6 to 10 cents; Pork and Sausages, 9 to 10 cents; Ham and Bacon, 8 to 12 cents; Beeves' Tongues, 42 to 68 cents each; Young Pigs, $1 to $1.25 each.

Fish, &c.—Striped Bass, from 8 to 10 cents per lb.; Codfish, 3 to 4 cents; Haddock, 5 to 6 cents; Black Fish, 8 cents; Flounders, 5 cents; Eels, 8 to 10 cents; Pike, 13 cents; White and Yellow Perch, 8 cents; Smelts, 12 cents; Lobsters, 6 cents; Crabs (hard-shelled), 25 cents per dozen; Oysters, 50 cents to $1.25 per 100; Clams, 37 to 75 cents per 100.

Poultry, Eggs, and Game.—Turkeys, from 87 cents to $1.25 each; Wild Turkeys, $2 to $2.50; Geese, 37 cents to $1.50; Wild Geese, 87 cents to $1.12; Ducks, (domestic), 50 cents to $1 per pair, Ducks (canvas-backed), $1.50 to $2; Ducks, (wild), 37 to 62 cents; Brant Ducks, 75 cents; Teal and Widgeons, 37 to 50 cents; Chickens, 37 cents to $1; Partridges, 62 to 75 cents; Guinea Fowls, 50 cents to $1; Capons, 15 to 18 cents per lb.; Woodcocks, 50 to 62 cents per brace; Pigeons, $1.25 to $1.50 per doz; Quails, $1 to $1.50; Robbins, 47 to 50 cents; Rabbits, 12 cents each; Grey Squirrels, 6 to 10 cents; Venison, 10 to 15 cents per lb.; Eggs, 7 to 10 for 13 cents.

Honey, from 12 to 18 cents per lb.

Dairy Products.—Butter, from 18 to 25 cents per lb.; Cheese, 7 to 10 cents; Cheese Cakes, 8 for 12½ cents; Milk, 4 to 6 cents per quart.

Ice.—25 cents per 100 lbs.

Fruit and Nuts.—Lady Apples, from $3.50 to $5 per bbl.; Newtown Pippins, $1 to $3.50; Vanderveres, $1.50 to $2; Spitzenburgs, and Wine Apples, $2; Belle Fleurs, $1.75; R. I. Greenings, $1.25 to $1.50; Fall Pippins, $1.50 to $2; Golden Pippins, $1.50 to $1.75; Pearmains, $1 25; Gilliflowers, $1.75; Roxbury Russets, $1.25 to $1.75; Apples in small parcels, 6 to 18 cents per half peck; Quinces, $1 to $2.50 per 100; Cranberries (eastern), $6.50 to $7 per bbl., Cranberries in small parcels, 25 to 37 cents per half peck; Grapes (Malaga), 18 to 25 cents per lb.; Oranges, 25 to 62 cents per dozen; Lemons, 12 to 25 cents; Bananas, 50 to 75 cents; Chestnuts, $3 to $3.50 per bushel; Hickory Nuts, $1 to $1.25; Peanuts, $1.25 to $1.50; Coco Nuts, 6 cents each; Pecan Nuts, 8 to 10 cents per lb.; Filberts, 8 cents; Madeira Nuts, 10 cents; Almonds (hard-shelled), 12 cents; Almonds (soft-shelled), 15 to 18 cents.

Vegetables.—Carter, Mercer and Kidney Potatoes, 75 to 87 cents per bushel; Pinkeyes, 50 to 62 cents, Potatoes in small parcels 12 cents per half peck; Sweet Potatoes, $1 per bushel; Sweet Potatoes in small parcels, 12 to 15 cents per half peck; Onions (red), 37 to 41 cents per bushel; Onions (white), 75 cents; Onions (silver-skinned), 50 cents; Onions in small parcels, 12 to 15 cents per half peck; Leeks, 6 cents for 5; Tomatos, 50 cents per basket, or 15 cents per half peck; Citron Melons (for preserving), 9 to 18 cents each; Valparaiso and Patagonian Squashes, 12 to 18 cents; Long-necked Striped Squashes, 12 cents; Flat Turnips, 25 cents per bushel; Flat Turnips in small parcels, 6 cents per peck; Ruta-Bagas, 37 cents per bushel; Beets, 50 cents; Beets in small parcels, 1 cent each; Carrots, 37 cents per bushel; Carrots in small parcels, 1 cent each; Parsnips, 42 cents per bushel; Parsnips in small parcels, 1 cent each; Oyster Plants, 4 to 5 cents per bunch; Purple Cabbages, 6 cents each; Cabbages (common), 3 to 4 cents; Cauliflowers, 18 to 25 cents per head; Celery, 6 to 8 cents; Lettuces, 18 to 25 cents per dozen.

REMARKS.—The market is quite active, and prices without much change. The season has been a prosperous one upon the whole, and prices good for northern and western products. We regret to say, that those at the south are not paying so well, and there seems to be little prospect of a rise. We shall hope for more prosperous times next year; but in looking abroad at the troubles in Europe, what cause have not the people of America to congratulate themselves upon their envious condition? Let us be thankful to a kind Providence that things are so well with us, and endeavor by our good conduct and contentment, to merit a continuation of his blessings.

TO CORRESPONDENTS.—Communications have been received from M. W. Philips, W. Bacon, A. L. Elwyn, Solon Robinson, A Farmer Subscriber, C. D., Samuel Allen, T. C. Peters, Isaac Hicks, An Amateur, Wm, R. Prince, A Beatty, H. Fuller, James Boyle, Sergeant Teltrue, and Reviewer.

Curing Hams.—F., of Fairfax, Va.—If your neighbor's hams were packed down in charcoal dust in a cellar, or other damp place, their decay must have been caused by the absorption of moisture by the charcoal. Had his hams been packed away in dry charcoal dust, in a cool dry room above ground, he would have had no cause for complaint about "book farming."

A Plain Truth Plainly Spoken.—A Farmer Subscriber.—We agree with you. Ten to one the writer of the article alluded to in our November number, is himself one of those accustomed to the luxury of "easy chairs, and the vanity of gloves," whose endeavor it is not "to get their living out of the soil," but out of their fellow men. Persons wishing work can find employment by applying at the office of the Emigrant Society, Spruce st. N. Y., without brokerage or charge.

ALBANY AGRICULTURAL WAREHOUSE AND SEED STORE.

Removed from stand No. 10 and 12 Green street, to the spacious New Store No. 369 Broadway, a few doors South of the Post Office, Albany, N. Y.

THE subscriber being a sufferer from fire, in common with a large portion of the citizens of Albany (having lost his store and stock on the morning of the 29th of October last), has secured for a term of years the new and extensive store, No. 369 Broadway, or old Market street, a few doors south from the Post Office. This store being 145 feet deep, and four stories high, is much larger than his former one and running through from Broadway to the Canal basin—Broadway being the principal thoroughfare in the city, between the boat landings and depôts, the location is readily found. These advantages, with the increased facilities, will enable him to transact many times the business heretofore done by him, and more convenient for the trade generally.

In connection with these changes, he is erecting an extensive manufactory in the central part of the city, sufficiently large to accommodate over 100 mechanics, and a proportionate amount of labor-saving machinery, which will enable him at all times to execute all orders with despatch. And he solicits the continuance of that very liberal patronage heretofore bestowed upon his establishment. H. L. EMERY.

N. B. It is his intention to establish branches at Rochester and Buffalo the coming spring, each to be under the charge of experienced brothers of the subscriber.

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American Agriculture, by Allen. $1.
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Buel's Farmer's Companion. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Downing's Fruits and Fruit Trees of America. $1.50.
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Domestic Economy, by Miss Beecher. 75 cents.
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Fruit Culturist, by J. J. Thomas. 50 cents.
Gardner's Farmer's Dictionary. $1.50—leather, $1.75.
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Loudon's Ladies' Flower Garden. $1.25.
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Parsons on the Rose. $1.50.
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Stable Economy, by Stewart. $1.
Smith's Productive Farming 50 cents.
Treatise on Milch Cows. 38 cents.
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4t* Nov.

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" ¾	"	"	3 " 8	"	10 do 8	"
" 1	"	"	5 " 10	"	14 do	"
" 1¼	"	"	6 " 12	"	17 do 8	"
" 1½	"	"	11 "	"	19 do	"
" 2	"	"	16 " 12	"	27 do	"
" 2½	"	"	23 " 8	"	50 do	"
" 3	"	"	28 "	"	59 do	
" 3½	"	"	45 "	"	80 do	
" 4	"	"	49 "	"	90 do	
" 4	"	Water Pipe			15 do 14	"
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Take Particular Notice.—Persons making application for these rams, by mail, or otherwise, are requested to name the *size* of the stream, or *quantity of water running in it per minute*, the *amount* of the fall they are able to produce, the *height* the water is desired to be raised, and the *distance* it is wished to be conveyed.

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JUST received a cargo of Peruvian Guano, fresh from the Chinche Islands. Those wishing to purchase, had best send in their orders immediately, direct to the subscribers; in this way they will be sure of getting the genuine article. Considerable quantities of Chilian and other South American Guano, have been sold the past season for Peruvian. Farmers will do well to be on their guard against such impositions, and purchase only where they are certain of obtaining such as is pure and unadulterated.

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THE Subscribers having recently made extensive arrangements with the Bone Mills, are now prepared to execute the largest orders for present, and the ensuing spring's use. Price, 40 cents for crushed, and 50 cents per bushel for sawings and turnings.

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ANNUAL MEETING OF THE NEW YORK STATE AGRICULTURAL SOCIETY.

THE Annual Meeting of this Society will be held at Albany, on the third Wednesday (17th) of January, 1849. Premiums will be awarded on Grain and Root Crops, Butter, Cheese, Fruits, &c. Statements should be furnished the Secretary early in January.

It is desired that there should be a full representation from County Societies, as well as of the friends of agriculture generally.

A *Pomological Exhibition* will be held at the rooms of the Society, and growers of fruit are respectfully requested to forward specimens to the secretary as early, if practicable, as the 15th of January. B. P. JOHNSON, *Secretary*.

Nov. 1st, 1848. n3t

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THE Subscriber offers for sale his farm, 18 miles south of Rochester, situated on the Genesee River, in Livingston county. It contains 1,350 acres of land, 500 of which are the best quality of Genesee Flats, and the balance is superior wheat land. The farm is in a highly improved state, and has extensive farm houses and outbuildings, and offers very great inducements to agriculturists. A large portion of the purchase money may remain secured by mortgage on the place. The Genesee Valley Canal passes through the place, giving an excellent market for the produce raised. Apply to

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